SEEKING ALTRUISM: EVALUATING INVESTOR INCENTIVES IN CONTEXT OF THE SOCIAL IMPACT BOND

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ABSTRACT

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Title: Seeking Altruism: Evaluating Investor Incentives in Context of the Social Impact Bond

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The Social Impact Bond is an innovative new impact investing model that allows private investors to match their invested capital with social impact goals while shifting the risk of non-profit program failure from the government to the private investor. These financial instruments sit at the intersection of public policy, financial markets, and the non-profit sector, and they hold the potential to redefine how society funds social programs. Existing academic literature regarding Social Impact Bonds has not comprehensively considered the goals of the private investor investing in these financial arrangements. As a result, this thesis aims to answer two questions: 1) why would impact investors commit capital to a Social Impact Bond, and 2) can Social Impact Bonds satisfy the goals of these investors?

To answer these questions, I begin by identifying a conceptual framework for analyzing impact investors that focuses on the investors' prioritization of financial and non-financial goals. I then describe the structure, history, and development of Social Impact Bonds as a new vehicle for funding social programs. After building this foundational understanding, I analyze the goals of private investors investing in Social Impact Bonds and discuss whether these new financial instruments can satisfy these goals. Finally, I conclude with a discussion of the long-term viability of the Social Impact Bond model and recommend changes to better tailor the instrument to match investor goals.

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- Chandler

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INTRODUCTION

Suppose you are an individual investor at an annual meeting with your wealth management advisors. The first item on the meeting's agenda is to make revisions to your asset allocation strategy; you must apportion your investment capital among asset classes that offer differing levels of risk and return. Typically, you make this decision based on your family's investment goals, risk aversion, and desired time horizon.[1] However, a new goal has recently come to influence your investment strategy: the desire for social impact. You communicate this newfound appetite to link your investments to social impact, and your wealth managers present you with the option to invest in an innovative new instrument called the Social Impact Bond (SIB).[2] Your advisors describe SIBs as a unique investment vehicle that allow you to invest in non-profit interventions while generating financial returns in the case that the social program is successful. You are initially skeptical: what is a Social Impact Bond, who are the primary stakeholders in a SIB contract, and will investing in a SIB genuinely satisfy your goal to link investment returns with social impact?

The asset allocation decision just described is not limited to a conversation between an affluent investor and his or her wealth advisors. Asset allocation judgements are required for any portfolio manager, institutional investor, or corporation that controls financial assets. Any of these investors could also be seeking to satisfy an additional goal to enact social change in society. In this thesis, I investigate the questions that these investors are likely to ask when

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[1] Frank K. Reilly and Keith C. Brown, *Analysis of Investments & Management of Portfolios*, (Delhi, India: Cengage Learning India, 2016), 31.

[2] Social Impact Bonds are referred to as pay-for-success contracts in the United States; however, for the purpose of this thesis, the term Social Impact Bonds (SIBs) will be used. SIB is the original name for the financial instrument and the name most often used in literature.

deciding whether or not to allocate investment funds to SIBs. Essentially, this investigation explores two research questions:

1) why would impact investors commit capital to a SIB, and

2) can SIBs satisfy the goals of these investors?

The long-term viability of the SIB model is dependent on understanding why private investors would choose to invest funds in a SIB rather than simply donating their capital to a non-profit. The private investor is a key stakeholder in the SIB model, yet academic research has largely ignored the incentives influencing the behavior of these investors. At the same time, the SIB model, implemented just under thirty times in the United States since 2013, remains malleable.[3] The lack of standardization of the SIB model opens an opportunity for industry professionals to alter the structural elements of SIBs in order to meet stakeholder demands. By exploring the goals of private investors, industry professionals can better design SIBs to match investor goals. Ultimately, satisfying investor goals can expand the pool of private capital available for non-profits to implement SIB-funded projects and deliver social impact.

In Chapter 1, I identify the growing trend of impact investing in financial markets and explore the "Spectrum of Investor Intentions" as a framework for evaluating the goals of impact investors. In Chapter 2, I explore the history of SIBs and review the existing academic literature that has shaped industry perception of these instruments since their inception in 2010. After dividing impact investors into two categories – finance-first investors and impact-first investors – Chapter 3 examines the goals of these investors in context of the SIB model. This discussion is paired with an analysis of whether or not the SIB model can effectively satisfy the investor's

[3] "Pay for Success Project Matrix" (New York City: Nonprofit Finance Fund, 2018). See https://payforsuccess.org/sites/default/files/excel-files/PFS-Project-Matrix.xlsx for dataset.

goals. Finally, Chapter 4 considers the long-term viability of the SIB model while recommending steps to maximize the long-term growth and impact of the financial instrument.

Quantitative and qualitative research of recent SIB implementations, analysis of SIB practitioner reports, and consideration of existing academic literature will make up the body of research used to explore the research questions. In the end, this thesis adds to the existing academic discussion of SIBs by building a more comprehensive picture of the private investor as a key stakeholder in the SIB model. The findings of this thesis better prepare industry professionals to communicate the positive characteristics of SIBs to private investors, hopefully expanding investor interest these financial instruments and unlocking more capital for non-profits to enact social change.

CHAPTER 1: IMPACT INVESTING AS A GROWING FIELD IN FINANCIAL MARKETS

Topic 1.1: Developing an Investor-Centered Framework to Evaluate Impact Investors

While the notion of pursuing social change through financial investment is not a new concept, the origin of the term "impact investing" in a financial context can be traced to a pair of Rockefeller Foundation meetings convened in Italy in 2007 and 2008.[4] At these conventions, the Foundation's representatives developed a working definition of impact investing while also launching a $38M initiative to begin constructing an infrastructure for a global impact investing network.[5] The first formal definition specified two criteria for an investment to be categorized as an impact investment:

1) the investment must deliver financial returns, and
2) the investment must pursue some environmental or social outcome that improves current environmental or social conditions.[6]

The first criterion distinguishes impact investing from traditional donation-based philanthropy or grant-based activities in which contributions to non-profits are made without the expectation of reaping financial returns from the contribution in the future. The second criterion differentiates impact investments from traditional marketable securities such as stocks, bonds, or futures contracts that do not have explicit non-financial goals connected to a broader environmental or social issue.

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[4] E.T. Jackson and Associates Ltd., "Accelerating Impact: Achievements, Challenges, and What's Next in Building the Impact Investing Industry," (The Rockefeller Foundation, 2012), ix.
[5] Sarah Murray and Laura Arrillaga-Andreessen, "The Rockefeller Foundation: Innovations in Social Finance," (Stanford Graduate School of Business, 2017), 4.
[6] Anna Katharina Höchstädter and Barbara Scheck, "What's in a Name: An Analysis of Impact Investing Understandings by Academics and Practitioners," (2015), 451.

Initially, this way of defining impact investing seems to rigorously delimit impact investments from traditional philanthropy and financial securities; however, the definition of impact investing has evolved significantly since its inception.[7] In 2010, a JP Morgan-commissioned report on impact investing differentiated impact investments from Socially-Responsibly Investments (SRIs) by characterizing impact investments as "proactively creating social or environment benefit" and SRIs as only seeking to reduce negative impact.[8] This new definition added a layer of complexity to the concept: to what degree should the social elements of an impact investment hold primacy over its financial returns? Essentially, the definition of impact investing began to explicitly focus on investors' prioritization of the financial goals and non-financial benefits of impact investments. The non-financial benefits, primarily the environmental or social change associated with the impact investment, had to be considered as either more, less, or equally important as the financial returns of the investment. Therefore, the definition shifted its focus to the perspective of the private investor's goals.

This modification to the definition of impact investing resulted in the development of a conceptual framework to evaluate the goals of impact investors: the Spectrum of Investor Intentions. This framework, displayed in Exhibit 1.1, illustrates how impact investments can be classified according to the intentions of the private investors committing capital to the investments. The investment categories are defined relative to one another on the basis of whether the investor prioritizes financial returns or non-financial impact. This creates a

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[7] E.T. Jackson and Associates, *Accelerating Impact: Achievements, Challenges, and What's Next in Building the Impact Investment Industry,* xi.
[8] J.P. Morgan Global Research, "Impact Investments: An Emerging Asset Class," (The Rockefeller Foundation, 2010), 6.

spectrum of investment categories with traditional investments anchoring the "finance-only" side of the spectrum and traditional philanthropy anchoring the "impact-only" edge.

Exhibit 1.1: The Spectrum of Intentionality[9,10]

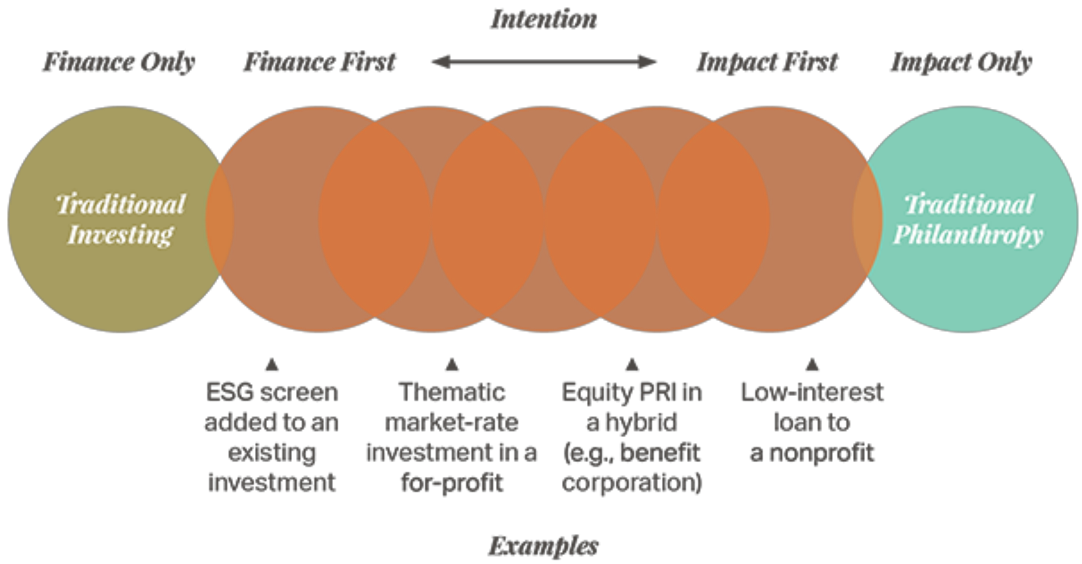

Exhibit 1.1 also illustrates the inherent ambiguity in classifying impact investments based on investor intentions. Any investment contained within the intermediate circles between "Traditional Investing" and "Traditional Philanthropy" is considered an impact investment; however, each circle that represents a distinct class of impact investments overlaps with the category on either side of it. Even the "Traditional Philanthropy" and "Traditional Philanthropy" circles at either end of the spectrum overlap with the intermediate circles. This ambiguity shows that investor intention is a fluid metric and provides only a starting point to distinguish categories of impact investments from one another. While the demarcation of

[9] "Impact Investing: An Introduction," Rockefeller Philanthropy Advisors (The Rockefeller Foundation, 2019).

[10] Two acronyms in Exhibit 1.1, ESG and PRI, are not defined in the discussion above. Environmental, Social, and Governance (ESG) criteria are a set of standards used to screen the ethical impact of an investment while a Program-Related Investment (PRI) is an investment made by a foundation for charitable activities rather than for generating income.

investment categories is not always clear, the Spectrum of Investor Intentions is effective at positioning impact investments relative to traditional financial instruments and traditional forms of philanthropy.

The Spectrum of Investor Intentions takes the first crucial step in developing a conceptual framework for evaluating impact investors. By identifying investor intention as the key differentiator of impact investments, it shifts the focus of analysis from the investment vehicle itself to the private investor's goals. This allows investors to be classified based on their intentions. In a simplification of the spectrum, impact investors can be grouped into two separate classes: impact-first investors and finance-first investors.[11] An impact-first investor prioritizes the non-financial benefits of an investment, such as pursuing social change, over the investment's financial returns. This investor may be willing to accept lower expected returns if an investment promises to deliver substantial social impact. Thus, an impact-first investor considers financial returns secondary to social impact. On the other hand, a finance-first investor views the social impact of an investment as a less important factor compared to the investment's potential financial returns.

An investor does not have to belong exclusively to either the impact-first or finance-first category. For example, a wealthy individual could make investments as an impact-first investor in one situation and as a finance-first investor in another. Also, new entrants into both categories are not exclusively made up of investors that previously engaged in traditional finance-only investing. Much of the impact investing ecosystem is made up of existing leaders in the traditional philanthropy market. Philanthropic foundations that traditionally make

[11] "Investing for Social & Environmental Impact: A Design for Catalyzing an Emerging Industry," (The Monitor Institute, 2009), 4.

donations in the form of grants are among the pioneers of the impact investing market.[12] According to federal tax regulations, foundations are required to donate only 5% of their total assets to social programs each year.[13] Before the emergence of impact investing, these foundations often used their residual assets to invest in traditional, finance-only investments. However, impact investing offers an opportunity for the foundations to act as impact-first investors and link their investments to programs delivering social impact. Thus, foundations are an example of an investor that can act as both an impact-first investor and a finance-first investor while remaining a leader in the traditional philanthropy market.

The implication of this discussion of impact-first versus finance-first investors is that the conversation regarding impact investing shifted over time to become centered on the intentions of the investor. As the impact investing market developed, access to capital was contingent on developing investment vehicles that satisfied the goals of the investor. Explicitly communicating the priorities of investors allows industry practitioners to better tailor investment structures to satisfy these goals. If an investor prioritizes social impact, an impact-first investment is appropriate while a finance-first investment matches the priorities of an investor that prioritizes financial returns. Thus, any new impact investing structure should be evaluated relative to the goals of both investor categories – the impact-first investor and the finance-first investor. New impact investing instruments that satisfy these goals will help avoid eroding investor interest in the budding market. Therefore, the evaluation of new impact investing instruments should remain centered on the intentions of the private investor.

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[12] Maximilian Martin, “Status of the Social Impact Investing Market: A Primer,” (UK Cabinet Office, 2013), 9.
[13] John R. Labovitz, “The Impact of the Private Foundation Provisions of the Tax Reform Act of 1969: Early Empirical Measurements,” (1974), 65.

A counter-position in existing academic literature argues that too much focus on satisfying the goals of investors, rather than those of other stakeholders, could lead to negative changes in the non-profit sector.[14] These negative impacts are described as a broad "marketization" of the non-profit sector, meaning that too much focus on the investor as the key stakeholder in impact investments could introduce new elements to the non-profit sector that mirror the for-profit competitive landscape. Those arguing this position use the term "marketization" with a negative connotation, arguing that the non-profit sector has been traditionally shielded from the competitive nature of private markets, and that this competition could negatively alter the non-profit sector.

There are two main "marketization" concerns identified in existing literature. First, the scarcity of impact investing capital relative to its demand in the non-profit sector could create a competitive bidding process for capital in which larger non-profit organizations tend to excel. Subsequently, a repeated cycle of large non-profits accessing capital could lead to consolidation in the non-profit industry.[15] This argument, however, ignores the fact that non-profits already engage in competitive bidding for grants, private donations, and earned revenue to finance their operations. The introduction of impact investing does not change how non-profits compete for capital, but rather it creates a new stream of capital for non-profits to access. Also, non-profit mergers represent "a unique yet infrequent opportunity for both organizational and client service improvement."[16] Synergies achieved through integration enable consolidated non-profits to improve their service delivery with stronger programs that deliver more

[14] Meghan Joy and John Shields, "Social Impact Bonds: The Next Phase of Third Sector Marketization?," (2013), 47.
[15] Ibid., 48.
[16] Garry W Jenkins, "The Powerful Possibilities of Nonprofit Mergers: Supporting Strategic Consolidation through Law and Public Policy," (2001), 1107.

sustainable social impact. Therefore, consolidation in the non-profit sector, while unlikely to be a consequence of impact investing, could actually improve the outcomes of non-profit programs.

The second key "marketization" concern in academic literature argues that impact investing could create an unequal relationship between non-profits and investors in which investors gain control over how non-profit organizations operate.[17] However, the majority of impact investments are executed as arms-length transactions in which investors do not acquire any control over non-profit operations. It remains unlikely that impact investors will exert control over the non-profits in which they invest. At the same time, the injection of investors into the management of non-profit programs is not necessarily a negative consequence of impact investing. It remains possible that investor involvement in project management could increase the probability of success for non-profit programs, ultimately creating better outcomes for those receiving the benefits of social programs.

Ultimately, this discussion illustrates that investor-centered mindset of impact investing is unlikely to have the negative side-effects identified in some academic literature. Evaluating impact investments by focusing on the intentions of the investor remains a viable framework to discuss new innovations in impact investing.

Topic 1.2: Impact Investing as an Emerging Asset Class

An asset class is a broad category of securities that share similar characteristics and risk-return relationships.[18] For example, bonds are an asset class with returns and risk levels typically lower than those of stocks, and bonds can be subdivided into smaller asset classes

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[17] Meghan Joy and John Shields, "Social Impact Bonds: The Next Phase of Third Sector Marketization?," 47.
[18] Frank K. Reilly and Keith C. Brown, *Analysis of Investments & Management of Portfolios*, 31.

based on their expected yields and time horizons.[19] Asset classes are also traditionally serviced by distinct organizations, such as an investment bank's bond trading division, and standardized procedures to classify investments within a specific asset class are typically developed over time.[20] All of these characteristics of asset classes allow financial professionals to distinguish between investments of different asset classes.

While impact investments vary in the degree to which social impact is prioritized over financial returns, they all share the characteristic of having some focus on non-financial impact. This characteristic distinguishes impact investments from existing asset classes such as stocks, bonds, or cash. Additionally, the pursuit of social impact inherent in impact investments alters the risk-return relationship of these investments, further distinguishing them from existing asset classes. Because there are fewer investors seeking social returns from their investments, the number of impact investors is much smaller than the number involved in stock or bond trading markets. Fewer investors interested in social impact means that impact investors may struggle to exit their investments, reducing liquidity and increasing the riskiness of impact investments.[21] Also, broker-dealer platforms have been slow to develop in the impact investing ecosystem, further reducing liquidity for investors.[22] This lack of liquidity is a risk characteristic shared by all impact investments, and it is a defining feature of their risk-return relationship. This unique risk-return relationship provides further evidence that impact investments cannot

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[19] Ibid., 31.
[20] J.P. Morgan Global Research, "Impact Investments: An Emerging Asset Class," 6.
[21] Vivek Pandit and Toshan Tamhane, "A Closer Look at Impact Investing," (McKinsey Quarterly, 2018).
[22] Amit Bouri et al., "Roadmap for the Future of Impact Investing: Reshaping Financial Markets," (Global Impact Investing Network, 2018), 28.

be categorized neatly into existing asset classes, meaning impact investing may be emerging as a distinct asset class.

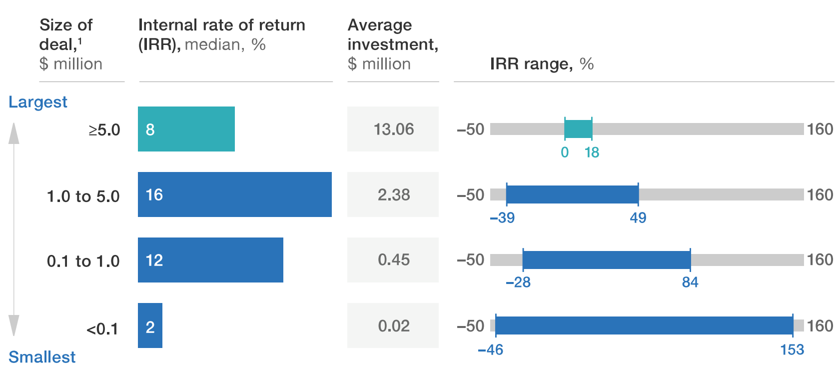
Identifying a distinct asset class also requires considering the return profile typical of the asset class's investments. Returns for impact investments vary widely; however, the internal rate of return (IRR) for impact investments is competitive with existing return rates of other asset classes. A McKinsey & Company study of 48 impact investments in India from 2010 to 2015 found a median internal rate of return of 10%.[23] The top third of the deals generated a yield of 34%, far outpacing typical bond returns in the same time period. However, the study also demonstrated an extremely high degree of variability in returns among the 48 investments. Exhibit 1.2 shows how the IRR of the investments varied according to the size of the impact investment. The variability is extremely high, with IRRs ranging from -46% to 153% for the smallest class of investments.[24] Analysis of this data is difficult to complete due to the small size of the sample, but it highlights a larger theme regarding impact investment returns: while returns can be competitive with those of existing asset classes, no clear pattern has emerged to define the return profile of impact investments.

When an asset class emerges, it is also expected that institutions will begin to build the infrastructure necessary to support the new asset class. This institutional support has begun to develop in the market for impact investments as investment funds and other distinct organizations begin to dedicate themselves exclusively to the impact investing ecosystem. Traditional asset managers are raising their own large-scale funds to invest in the impact

[23] Vivek Pandit and Toshan Tamhane, "A Closer Look at Impact Investing."
[24] Ibid.

investing market, including firms such as The Abraaj Group and BlueOrchard Finance.[25] Development finance institutions such as the Commonwealth Development Corporation in the United Kingdom are often set up by governments to accumulate expertise regarding impact investments.[26] New business units within existing financial institutions, such as the Social Finance unit within J.P. Morgan, are implementing impact investing initiatives to build market infrastructure.[27] At graduate and undergraduate business schools across the country, impact investing is gaining momentum as a key component of business administration curriculums.[28] For example, the McCombs School of Business recently launched the Social Innovation Initiative with a specific goal to expand the study of impact investing. These examples of increased institutional engagement indicate that an infrastructure to support the impact investing asset class is growing.

Exhibit 1.2: Variability of Impact Investment Returns by Size of Investment[29]



¹Number of exited deals = 48.
Source: Impact Investors Council (IIC) survey covering investments over the years 2010–16; VCCEdge; McKinsey analysis

[25] Amit Bouri et al., "Roadmap for the Future of Impact Investing: Reshaping Financial Markets," 27.
[26] J.P. Morgan Global Research, "Impact Investments: An Emerging Asset Class," 15.
[27] Ibid., 26.
[28] Ibid., 28.
[29] Ibid.

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Standardized metrics to evaluate investments within a specific asset class are also signals that a distinct asset class may be developing. These standards of measuring success have been slow to develop for impact investments, but standards such as the Impact Reporting and Investment Standards (IRIS) have attempted to provide benchmarks to compare impact

[30] Amit Bouri et al., "Roadmap for the Future of Impact Investing: Reshaping Financial Markets," 27.
[31] J.P. Morgan Global Research, "Impact Investments: An Emerging Asset Class," 15.
[32] Ibid., 26.
[33] Ibid., 28.

investments.[34] The IRIS metrics have not been universally accepted as a way to measure the social impact of the investments, but they have created a framework for measuring success that could be adopted by the ecosystem in the future. These metrics require historical data to compare different investments, so the IRIS organization has also begun collecting data to serve as the benchmark for evaluating the performance of future impact investments.[35] The collection of data is complicated by the vast number of ways to measure social impact, but further standardization could help establish impact investing as an alternative asset class.

The above evidence shows that the impact investing ecosystem is taking the first steps to become a distinct asset class. If impact investing continues to develop as an alternative asset class, more private investors will face with the decision to allocate assets to the impact investing asset class. Understanding impact investing as an asset class and viewing it from the perspective of the investor's intentions will be crucial to evaluate the investing vehicle introduced in Chapter 2, the Social Impact Bond.

[34] Ibid., 29.
[35] Ibid., 29.

CHAPTER 2: SOCIAL IMPACT BONDS INTRODUCTION AND LITERATURE REVIEW

Topic 2.1: History and Structure of Social Impact Bonds

Following the 2008 global financial crisis, the United Kingdom experienced a period of reduced government spending that led to the creation of the first Social Impact Bond.[36] As government tax revenues sharply decreased during the economic downturn, a "wave of austerity" led by the Conservative Party in the UK Parliament reversed Britain's long history of considerable spending on social welfare programs.[37] Reduced government spending on social programs had two significant effects on the implementation of social programs in the UK. First, non-profits lost access to government capital, forcing the non-profit service providers to seek new sources of funding. Second, the government's aversion to risk significantly increased, meaning the government was less likely to assume the risk of failed programs.

The first Social Impact Bond (SIB) was established as a reaction to both of these effects. SIBs introduce private investors to the implementation of social projects, unlocking access to a new line of capital for the non-profit service providers, and they allow governments to transfer the risk of program failure to the investors.[38] A SIB is an impact investing instrument that provides private investors the opportunity to invest capital in social programs and receive a return on the condition that the program achieves pre-determined outcomes.[39] The structure of SIB contracts is not yet standardized; however, several fundamental interactions between key stakeholders have been present in every SIB variation that has been implemented. Exhibit

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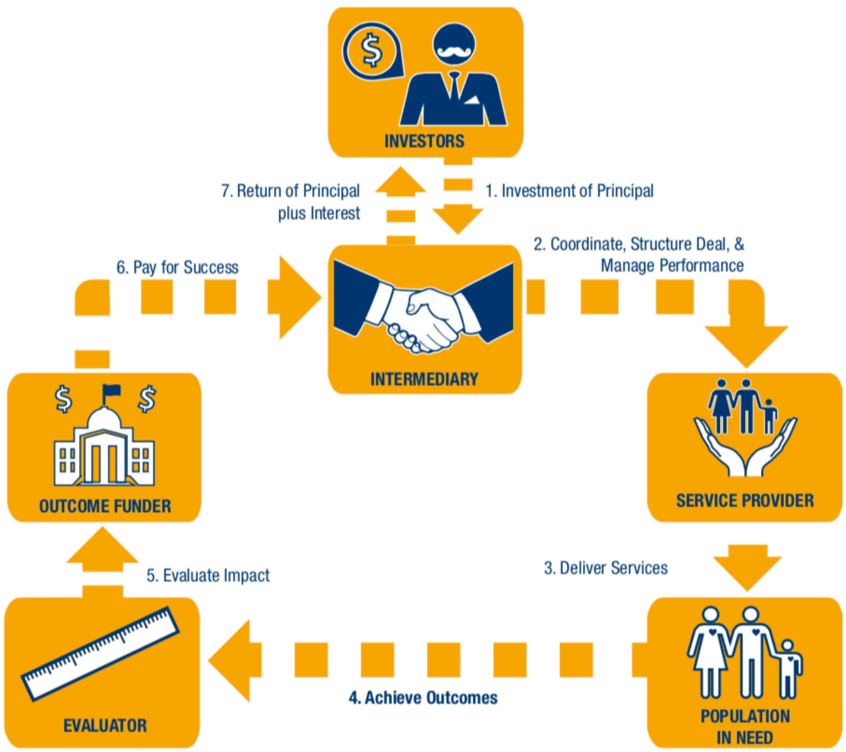
[36] Meghan Joy and John Shields, "Social Impact Bonds: The Next Phase of Third Sector Marketization?," 41.
[37] Peter S Goodman, "In Britain, Austerity Is Changing Everything," *The New York Times*, May 28, 2018.
[38] Paul Burton, "No Success Like Failure: N.Y. Sees Social Impact Bond Pluses," (Bond Buyer, 2015).
[39] Adriana Barajas et al., "Social Impact Bonds: A New Tool for Social Financing," (2014), 7.

2.1 summarizes these interactions and identifies the stakeholders that play a role in the development and implementation of SIBs. Thus, the SIB structure provided a solution to both consequences of the period of austerity following the 2008 financial crisis in the United Kingdom.

Exhibit 2.1: Structure of a SIB[40]



A SIB is defined by the interactions between six key stakeholders: 1) private investors, 2) non-profit service providers, 3) outcome funders, 4) intermediaries, 5) outcome evaluators, and 6) the at-risk population. The investor is responsible for committing capital to a social program and expects the upfront commitment to be repaid, plus a specified level of return, if the program is successful. Traditionally, the private investor is a large bank, but individuals,

[40] Emily Gustafsson-Wright, Sophie Gardiner, and Vidya Putcha, "The Potential and Limitations of Impact Bonds: Lessons from the First Five Years of Experience Worldwide," (The Brookings Institution, 2015), 7.

philanthropic foundations, and pension funds have also served as upfront investors in SIBs.[41] A non-profit entity uses the invested capital to implement a social program meant to benefit an at-risk population, such as criminal offenders on parole or children lacking sufficient educational supplies. An evaluator measures the pre-determined outcomes that define success for the project, ultimately dictating whether the threshold of impact has been met for the private investor to be repaid his or her capital investment.[42] In the event that the outcomes for success have been met, the outcome funder will repay the private investor his or her capital investment. Most often, the outcome funder is a government agency with jurisdiction related to the social program that is being implemented. The outcome funder is often responsible for identifying the social problem that the non-profit entity is dedicated to solving. Finally, an intermediary mediates the interactions between the private investor, the non-profit service provider, and the outcome funder. [43] With six key stakeholders, SIBs are highly complex impact investing instruments that require the cooperation of decision-makers from the public, private, and non-profit sectors.

The structure outlined above may be adapted in order to mitigate the financial risk held by the private investors. The most significant variation in the SIB structure relates to the frequency at which the outcome funder makes repayments to the private investor. Two models of repayment exist: the binary SIB model and the incremental model.[44] In the binary model, the SIB-funded project is evaluated for success on an all-or-nothing basis, meaning the private

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[41] Meghan Joy and John Shields, "Social Impact Bonds: The Next Phase of Third Sector Marketization?," 40.
[42] Emily Gustafsson-Wright, Sophie Gardiner, and Vidya Putcha, "The Potential and Limitations of Impact Bonds: Lessons from the First Five Years of Experience Worldwide," 7.
[43] Ibid., 7.
[44] Meghan Joy and John Shields, "Social Impact Bonds: The Next Phase of Third Sector Marketization?," 41.

investor either receives full repayment of their investment in the case of success or receives no repayment in the event of a failed program. This model presents considerable financial risk for the private investor.[45] The incremental model mitigates the risk associated with the binary model by tying repayments to incremental, measurable outcomes.[46] This structure allows the program to be evaluated on a continuum, and repayment to the private investor is made proportionally to the program's degree of success.

A final variant to the structure of SIBs involves the introduction of an underwriter to transfer some of the risk of failure away from the private investor. The private investor may mitigate some of the risk inherent to the binary model by seeking out an underwriter to guarantee part of the loan even if the program fails to achieve successful outcomes.[47] For example, Goldman Sachs committed $7.2 million to a SIB in the United States, and $6 million of that investment was guaranteed by Bloomberg Philanthropies in the event the program failed. Thus, a failed program would result in a 16.67% loss for Goldman Sachs rather than a complete loss of all invested capital.[48] Based on the risk aversion and goals of the private investor, he or she may prefer either the incremental repayment model or the introduction of an underwriter in order to avoid the risk of the binary repayment model.

The complex structure of the SIB was implemented for the first time in September 2010 in Peterborough, United Kingdom. The first SIB funded a seven-year program to reduce recidivism rates for 3,000 ex-offenders by 8.5%.[49] The program was terminated early after five

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[45] Ibid., 41.
[46] This model is also referred to as the "Frequency Scheme Model."
[47] Meghan Joy and John Shields, "Social Impact Bonds: The Next Phase of Third Sector Marketization?," 40.
[48] James Anderson and Andrea Phillips, "What We Learned from the Nation's First Social Impact Bond," *The Huffington Post*, July 2, 2016.
[49] Annie Dear et al., "Social Impact Bonds: The Early Years," (Social Finance, 2016), 19.

years and only provided services for 2,000 ex-offenders; however, recidivism for ex-offenders involved in the intervention decreased by 9%, surpassing the target rate set by the United Kingdom's Ministry of Justice.[50] As a result, the group of seventeen foundations and trusts that fronted £5 million were repaid their investment along with a 3 percent per annum return.[51] Social Finance, a non-profit organization dedicated to mobilizing capital for social change, spearheaded the creation of the Peterborough SIB. During the development process, Social Finance acted as the intermediary in the SIB structure, identifying investors and aligning the outcome metrics with the Ministry of Justice's desired targets for the intervention.

Exhibit 2.2 illustrates the expansion of the SIB market following the successful implementation of the first SIB in Peterborough. As of late 2018, 121 social impact bonds have been implemented on six continents, raising a total of $413 million from private investors.[52] While the first fifteen SIBs were implemented in the United Kingdom, the first SIB in the United States was established in 2013 at New York's Rikers Island jail.[53] This SIB almost exactly duplicated the Peterborough SIB in terms of the services provided to ex-offenders at the jail; however, Goldman Sachs was the private investor in the Rikers Island bond. The evaluation of the Rikers Island SIB determined that the intervention did not meet recidivism reduction targets, so the New York state government was not required to repay Goldman Sachs its investment. Despite the failed intervention at Rikers Island, the SIB market has continued to develop in the US including a $300 million Social Innovation Fund in the Treasury Department

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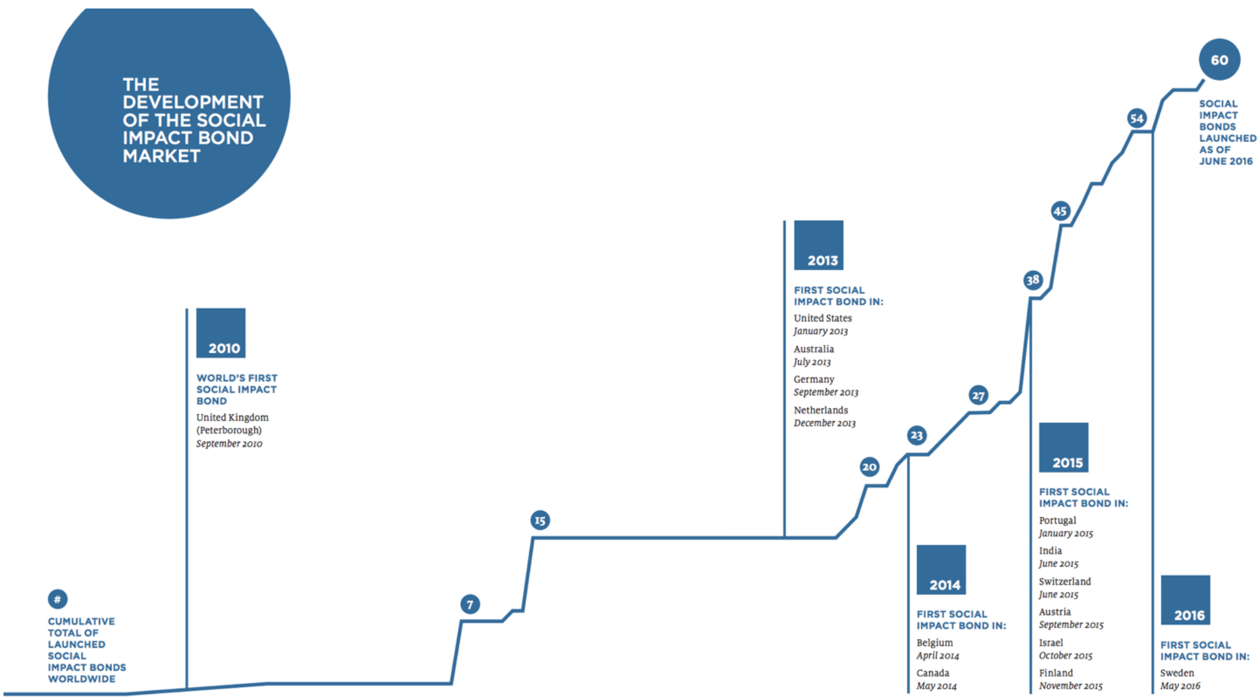
[50] David Ainsworth, "Peterborough Social Impact Bond Investors Repaid in Full," (Civil Society Media Limited, 2017).
[51] Ibid.
[52] "Social Impact Bond Global Database," (London, UK: Social Finance, 2018).
[53] James Anderson and Andrea Phillips, "What We Learned from the Nation's First Social Impact Bond."

dedicated to underwriting SIBs in the future.[54] In Texas, a Senate bill was passed to authorize a SIB contract to fund new math education programs in local public high schools.[55] In previous federal legislative sessions, House and Senate bills were introduced to appropriate funds for SIBs and create a program to standardize the authorization of SIBs.[56] While these bills did not ultimately pass during their respective legislative sessions, they indicate a growing government appetite for SIBs in the United States at both the federal and state level.

Exhibit 2.2: Growth of the SIB Market[57]



[54] Meghan Joy and John Shields, "Social Impact Bonds: The Next Phase of Third Sector Marketization?," 41.
[55] Texas State Legislature. Senate. "An Act Relating to Designation of Mathematics Innovation Zones," S.B. No. 1318. 2017 - 2018 Regular Session. Texas State Senate. Web.
[56] U.S. Congress, Ways and Means Committee and Todd C Young, resolution, 4885: Social Impact Bond Act (113AD).
[57] Annie Dear et al., "Social Impact Bonds: The Early Years," 19.

Topic 2.2: Key Themes in Academic Literature Related to Social Impact Bonds

The short history of SIBs limits the production of academic research based on experimental treatments and quantifiable results from completed projects. Few datasets have been compiled to quantify the success rates of SIB-funded non-profit programs. As a result, almost all of the academic literature discussing SIBs considers them conceptually rather than quantitatively. Thus, existing literature focuses on developing theories about the perceived benefits and drawbacks of the SIB as a new impact investing instrument. A systematic review of the academic literature available on online databases identifies thirty-four academic articles related to SIBs and fifty-three "grey literature" works published outside of typical academic distribution channels.[58,59] Several themes related to the role of the private investor in SIB contracts dominate the vast majority of these academic articles. Three of the key themes are reviewed below:

1) Injection of private sector discipline into the non-profit sector

Several academic articles assert that SIBs provide an advantageous opportunity for private investors to introduce best practices of project management to the non-profits implementing SIB-funded social programs. Measured outcome-orientation is inherent to the structure of a SIB, and scholars are in general agreement that the non-profit sector can benefit from a greater degree of emphasis on compiling data and measuring impact.[60] Articles analyzing the failed Rikers Island SIB in New York echo this sentiment. Although the recidivism

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[58] Alec Fraser et al., "Narratives of Promise, Narratives of Caution: A Review of the Literature on Social Impact Bonds," (2016), 7.
[59] "Grey Literature" is a category of research that is not published in commercial academic journals. This literature includes government reports, practitioner reports, and working papers.
[60] Alec Fraser et al., "Narratives of Promise, Narratives of Caution: A Review of the Literature on Social Impact Bonds," 7.

intervention failed to meet targets, data collected throughout the intervention helped identify the program's point of failure and will shape future recidivism projects at Rikers Island.[61] The emphasis on outcome measurement is a consequence of the private investor's requirement that outcomes are measured in order to quantify the impact, determine the status of repayment, and calculate the risk of program failure. Along with outcome-orientation, a common line of argument in scholarly debate asserts that private investors inject a spirit of innovation into the non-profit sector when they enter a SIB contract. The argument states that competition in the private sector encourages innovation, and private investors bring this value of innovation to SIB-funded interventions, choosing to fund only the most innovative programs.[62] In the same way that private investors introduce outcome-orientation into the non-profit sector when they commit capital to a SIB, the investors bring an emphasis on innovation to the projects funded with a SIB.

A qualification exists to this argument. Several academic articles argue that predetermining a definition of success for a SIB program automatically precludes the possibility that the program is innovative. Essentially, the private investor's requirement for pre-determined outcomes undermines the investor's desire to fund innovate programs due to an "inherent tension between evidence and experimentation."[63] The definition of success is determined before the implementation takes place, and thus, the interventions cannot

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[61] James Anderson and Andrea Phillips, "What We Learned from the Nation's First Social Impact Bond."

[62] Alec Fraser et al., "Narratives of Promise, Narratives of Caution: A Review of the Literature on Social Impact Bonds," 8.

[63] Florentine Maier, Gian Paolo Barbetta, and Franka Godina, "Paradoxes of Social Impact Bonds," (2017), 8.

sufficiently adapt to changes in the environment as they occur. Thus, predetermined success is a limitation on the ability of non-profit service providers to remain innovative.

2) Transfer of risk from the government to the investor

The second key theme regarding the investor's role in the SIB structure is that the financial risk of program failure is transferred from the government outcome funder to the private investor committing the capital. If the program is successful, investors are rewarded for taking on this risk by receiving a rate of return beyond the repayment of their initial investment. The risk transfer from the government outcome funder to the investor is typically considered the key advantage of funding an intervention with a SIB rather than with direct government contracts. Evidence from the Rikers Island SIB also supports the conclusion that SIBs are effective at transferring risk. When the project failed, the government was not responsible for paying the expenses of a failed intervention.[64] Scholarly debate almost completely accepts the premise that the risk transfer exemplified in the Rikers Island SIB is present in the vast majority of SIB implementations.

3) *Introduction of additional transaction costs*

A negative consequence of the risk transfer discussed above is that the private investor introduces significant transaction costs for both the non-profit service provider and the government outcome funder as the "price" of the risk transfer.[65] These transaction costs include expenses related to negotiating the SIB contracts and hiring an intermediary such as Social Finance to coordinate the transaction. Additionally, SIBs require the non-profit to hire an independent evaluator to measure the program's success according to specific targets

[64] Paul Burton, "No Success Like Failure: N.Y. Sees Social Impact Bond Pluses."
[65] Florentine Maier, Gian Paolo Barbetta, and Franka Godina, "Paradoxes of Social Impact Bonds," 12.

throughout the lifespan of the project. The key assertion of this argument is that governments have to pay the expenses of de-risking, meaning the risk transfer itself is costly regardless of whether or not the program fails.[66] Thus, researchers in support of this argument would state that SIBs introduce unnecessary costs to the funding of social projects, undermining the SIB's goal to transfer all costs of a project to the private investor in the event of program failure.

Much of the scholarly debate regarding the high transaction costs predict that standardization of the SIB model will happen organically over time, allowing the model to scale and reducing the transaction costs of SIB implementations in the future.[67] An important distinction must be made when discussing the scalability of SIBs: scalability of the SIB model refers to the repeated application of the SIB structure to fund different non-profit programs while the scalability of an intervention refers to the repeated application of a social program in similar environments. Proven scalability of the model is the required condition for the transaction costs of entering into a SIB contract to decrease dramatically. Increased scalability could incentivize the private investor to enter into more contracts because the instrument could become a more liquid asset.[68] The current state of the SIB market, however, does not allow for the SIB model to be replicated at scale because each transaction continues to be complex and frustrated by conflicting stakeholder intentions.

Topic 2.3: Identifying a Gap in SIB Literature

The scope of existing SIB literature excludes a crucial perspective: that of the private investor committing capital to SIB interventions. Understanding *why* private investors would

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[66] Ibid., 13.
[67] Ibid., 8.
[68] Meghan Joy and John Shields, "Social Impact Bonds: The Next Phase of Third Sector Marketization?," 48.

choose to fund non-profits via a SIB contract rather than simply making a donation to a non-profit will help SIB developers adapt SIBs to better satisfy the goals of these investors. As explained in the description of the SIB's history, the primary purpose of SIBs is to provide an investment vehicle for non-profits to access private sources of capital. In order to maximize access to new sources of capital, SIBs must be structured in a way that sufficiently satisfies investors goals. Building the correct investor incentives into SIB contracts will grow investor appetite for SIBs, scaling the contracts to tangibly alter the way that non-profits acquire capital for their interventions.

In subsequent chapters, this thesis takes the first steps in exploring the perspective in SIB arrangements. By identifying the goals of impact-first and finance-first investors and suggesting adaptations to the SIB model that can better satisfy these goals, this thesis contributes to improving the long-term scalability of the SIB model.

CHAPTER 3: THE GOALS OF SOCIAL IMPACT BOND INVESTORS

Topic 3.1: The Finance-First Investor

As discussed in Chapter 1, the Spectrum of Investor Intentions categorizes impact investors based on the goals they wish to achieve by employing an impact investment vehicle.[69] Investors who prioritize financial returns above social impact goals are identified as "finance-first" investors. The first topic we explore in this chapter considers the goals that these investors seek to satisfy and evaluates whether SIBs adequately satisfy these goals.

As a general rule, finance-first impact investors prioritize financial returns from their impact investments above the investment's social impact benefits. According to the 2018 Annual Impact Investor Survey commissioned by the Global Impact Investing Network, 64% of the 229 surveyed investors reported that they expected competitive, risk-adjusted market returns from their impact investments.[70] These finance-first investors are not limited to for-profit fund managers. Institutional investors such as pension funds and investment banks along with family offices of the world's wealthiest individuals all responded that they expect market rate returns on at least two-thirds of their impact investment projects.[71] A family office manages the wealth of a single family, investing capital in projects that align with the family's financial and social goals.[72] Due to their private nature and singular source of assets, family offices are generally free of the institutional constraints of a publicly traded bank or privately managed fund.[73] Instead, family offices are restricted by the individual expectations of the

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[69] See Exhibit 1.1 in Chapter 1.
[70] Rachel Bass, "Annual Impact Investor Survey: The Eighth Edition," (Global Impact Investing Network, 2018), 48.
[71] Ibid., 42.
[72] "Family Offices Become Financial Titans," The Economist (The Economist Newspaper, 2018).
[73] Uli Grabenwarter and Heinrich Liechtenstein, "In Search of Gamma - An Unconventional Perspective on Impact Investing," (2011), 9.

wealthy individuals that they serve. A family office not only has access to large pools of capital – $500M on average – but it is also intimately linked to the goals of a single investor.[74] This unique dynamic enables family offices to "pioneer new investment areas and approaches with a degree of risk affinity."[75] Thus, family offices are a particularly interesting group of finance-first investors to consider in tandem with the innovative structure of a SIB. The introduction of this thesis frames the discussion from the perspective of a wealthy individual who may invest by way of a family office, and the rest of this section will continue to consider the wealthy individual who is engaging in a SIB project with a finance-first mindset.

According to the same investor survey that reported that at least two-thirds of family offices expect market-rate returns from their impact investments, the same investors reported expected average gross returns of 4.8% in the debt markets of developed countries.[76] The expected return of debt markets is an appropriate benchmark assuming that the cash flows of SIBs imitate those of other impact investing debt-finance vehicles. This assumption – that SIB returns mirror those of traditional debt instruments – will be analyzed in Chapter 4 of this thesis. While it is likely that SIB returns do not perfectly imitate debt instruments, the existing bond-like terminology used to discuss SIBs likely leads investors to initially expect returns similar to those of traditional bond instruments. Along with this assumption, the developed country rate from the investor survey, as opposed to the emerging debt market rate, is used as a benchmark because the definition of a SIB requires that their interventions take place in developed countries while the closely-related Development Impact Bonds (DIBs) take place in

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[74] "Family Offices Become Financial Titans," The Economist.
[75] Uli Grabenwarter and Heinrich Liechtenstein, "In Search of Gamma - An Unconventional Perspective on Impact Investing," 9.
[76] Rachel Bass, "Annual Impact Investor Survey: The Eighth Edition," 42.

emerging markets.[77] Therefore, a 4.8% gross return is the benchmark return that finance-first investors self-report that they to seek in investments similar to a SIB.

Collecting quantitative data on SIB performance is complicated by the fragmented nature of the non-profit sector, the lengthy time needed to prove success in a social intervention, and the brief time frame in which SIBs have been active. While some SIB intermediary organizations such as Social Finance compile data of their own SIBs, no reporting infrastructure has developed beyond these intermediaries. Also, few SIBs other than the pilot interventions in the United Kingdom and New York have advanced to the point of financial repayment. Therefore, a comprehensive database of completed SIBs does not exist for traditional quantitative analysis.

The richest source of quantitative data on existing SIBs has been compiled by the Nonprofit Finance Fund (NFF), a US-based Community Development Financial Institution that helps non-profits access new sources of capital.[78] The NFF database consists of data on 20 in-progress and completed SIBs in the United States.[79] Quantitative analysis of this dataset is limited by the small size of the sample; however, the data reveals a compelling narrative about the returns investors are demanding from SIBs. With few exceptions, investors are negotiating SIB contracts with expected returns that substantially exceed the 4.8% gross return benchmark identified above.[80] On average, investors are committing $11.6 million to SIBs with an average

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[77] "Development-Impact Bonds Are Costly, Cumbersome-and Good," The Economist (The Economist Newspaper, 2018).
[78] "Pay for Success Project Matrix" (New York City: Nonprofit Finance Fund, 2018). See https://payforsuccess.org/sites/default/files/excel-files/PFS-Project-Matrix.xlsx for dataset.
[79] Social Finance's database identifies 26 US-based SIBs, but it includes projects that are in development and have not completely fleshed out their contractual arrangements.
[80] "Pay for Success Project Matrix" (New York City: Nonprofit Finance Fund, 2018). See https://payforsuccess.org/sites/default/files/excel-files/PFS-Project-Matrix.xlsx for dataset.

expected return of 7.5%.[81] In the same survey that reported impact investors seek a 4.8% expected return in the developed-country debt-market, a 13.4% return on market-rate equity impact investments in the same developed countries.[82] Thus, impact investors are expecting a return on SIB investments that lies between their expected debt-market returns (4.8%) and equity returns (13.4%).

If impact investors are expecting higher returns on SIB contracts compared to other debt-market alternatives, then SIBs either contain risk-factors beyond those of typical debt vehicles or the time horizons of SIBs are significantly longer than the same debt alternatives. Essentially, SIB investors are expecting higher returns in order to compensate for the uncertainty of additional risk-factors or of an extended time horizon. According to the dataset, the average expected repayment time for the 20 SIBs is 6.7 years.[83] Non-profit interventions take time, and their results are often not realized, or even measurable, until years after the interventions have been completed. However, SIB contracts are used to finance interventions with clearly defined outcomes that can be measured shortly after the implementation of the intervention.[84] For example, a SIB in development in Texas will measure changes in standardized tests scores less than one year after new teaching practices are implemented in schools.[85] Thus, SIB-financing is typically linked to non-profit interventions of short durations, and shorter interventions translates to shorter time horizons for investors. Theoretically, SIBs should have shorter average time horizons than other impact investments due to the nature of

[81] Ibid.
[82] Rachel Bass, "Annual Impact Investor Survey: The Eighth Edition," 42.
[83] "Pay for Success Project Matrix" (New York City: Nonprofit Finance Fund, 2018). See https://payforsuccess.org/sites/default/files/excel-files/PFS-Project-Matrix.xlsx for dataset.
[84] Annie Dear et al., "Social Impact Bonds: The Early Years," 12.
[85] Elia Simons, "Math Innovation Zones," (The Texas Education Agency, 2019).

the interventions they finance. This means that the 6.7-year time horizon is likely not the main source of risk leading to a higher expected return for SIBs, compared to other debt-financed alternatives in the impact investing market.

If the time horizons of SIB investments do not differ significantly from those of traditional debt instruments, then SIBs must contain additional risk factors beyond those underlying alternative debt impact investments with expected returns of 4.8%. The risk factors underlying SIBs are numerous: operational risk, liquidity risk, and government non-payment risk are among the commonly cited.[86] All of these risk factors likely contribute to the 7.5% average expected return of SIBs in the US, and investors continue to demonstrate appetite for this risk as the SIB market in the US continues to grow. Liquidity risk is driven by the lack of standardization in the SIB market, lowering the potential for a secondary investor market to develop.[87] Today, investors are unable to exit SIB investments before the full contract term is complete, and repayment is often realized as a lump-sum after the intervention is complete, meaning SIB investors are unable to liquidate their investments early.[88] However, as more investors enter the market, a secondary market for SIBs could develop, allowing investors to liquidate their investments before the intervention is complete. The development of a secondary market could reduce liquidity risk for SIB investors; however, evidence from the development of a secondary market for private equity investments shows that the pace of such market development is extremely slow.[89] In a similar way to SIB investments, it is difficult to

[86] Nicholas Bergfeld, David Klausner, and Matus Samel, "Improving Social Impact Bonds: Assessing Alternative Financial Models to Scale Pay-for-Success," (Harvard Kennedy School, 2016), 18-21.
[87] Ibid., 21.
[88] Lindsay Beck, Catarina Schwab, and Anna Pinedo, "Social Impact Bonds: What's in a Name?," (Stanford University, 2016).
[89] Ben F Margow, "The Evolving Secondary Market for Private Equity," (2009), 5.

transfer interest in a private equity investment due to the specific contractual arrangements present in each private equity deal.[90] Even while the size of the primary private equity market has grown significantly, a secondary market remains to be developed at a scale large enough to reduce liquidity risk for investors. This evidence in a similar market indicates that growing investor interest in the SIB market is unlikely to lead to a secondary market that could significantly increase the liquidity of SIB investments.

Adjustments to the SIB model have attempted to mitigate the underlying operational risk that the non-profit service provider will fail to implement a successful social program. Goldman Sachs invested in the first SIB in the United States at Rikers Island in New York to finance an intervention that promised to reduce recidivism rates for young adults.[91] Goldman Sachs committed $7.2 million to the project; however, $6 million of the principal was guaranteed by Bloomberg Philanthropies in the case of intervention failure or the government's unwillingness to make repayments at project completion.[92] While government default on SIB repayments is unlikely to occur, the risk of program failure drastically increases the riskiness of a SIB investment. The introduction of a guarantor to the SIB structure was an innovative adjustment that mitigated the downside of this operational risk. The Rikers Island SIB intervention failed to produce the predetermined outcomes, and Goldman Sachs lost $1.2 million, significantly less than it would have lost without the loan principal guarantee.[93] This example reveals that SIBs remain a malleable financial instrument. As more investors enter SIB contracts, investors will continue to generate innovative approaches to the SIB structure that

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[90] Ibid., 5.
[91] Paul Burton, "No Success Like Failure: N.Y. Sees Social Impact Bond Pluses," 2.
[92] Ibid., 2.
[93] James Anderson and Andrea Phillips, "What We Learned from the Nation's First Social Impact Bond."

reduce the riskiness of the contracts. However, it is important to note that these adaptations to the SIB model could also reduce the liquidity of the investments. If one-off, contract-specific terms are included in a SIB arrangement to alter the return profile of the investment, these same user-specific terms could increase liquidity risk. One-off arrangements in SIB contracts may reduce the investor's ability to transfer interest in SIB investments to other investors.

For a finance-first investor seeking debt-like market-rate returns, SIBs may be too risky of an investment. This means that SIBs can satisfy investor goals if the investors are seeking returns higher than their traditional debt investments. Some investors may also seek tax benefits from SIB investments, but tax regulations related to SIBs have not been fully developed.[94] Because SIB investments have the upside potential of future returns on invested capital, SIB investments cannot be considered tax-deductible donations to non-profit organizations.[95] At the same time, income from SIB returns would not likely be subject to the preferential tax rate associated with the capital gains and dividend receipts of equity investments.[96] Instead, interest income from SIB investments is likely to be subject to marginal tax rates up to 39.6% that are typically applied to income from debt instruments.[97] Finally, while interest on bonds issued by state and local governments is typically tax exempt under federal tax law, interest on SIB investments does not likely qualify for this exemption.[98] Qualification for this tax-exempt bond status requires that a government entity or non-profit organization owns the property acquired from the bond's proceeds, but SIBs typically do not

[94] Orly Mazur, "Social Impact Bonds: A Tax-Favored Investment?," (Center for Research and Digital Scholarship, Columbia University, 2017).
[95] Ibid.
[96] Ibid.
[97] Ibid.
[98] Ibid.

finance new property acquisitions.[99] Instead, SIBs finance social programs that do not meet the requirements for the bond to be tax exempt. There are two key takeaways from the current state of SIB tax regulations. First, SIB investors are unlikely to receive substantial tax benefits from SIB-related income in the form of preferential tax rates or a tax exemption. Second, SIB tax regulations have not been fully developed, so there is potential that the uncertain tax benefits of SIBs could be regulated in the future.

Finance-first investors may also seek diversification benefits when they invest capital in a SIB. Diversification occurs when investors hold a variety of assets in order to offset the unique risk of one asset with the combined variability of all other assets in the portfolio.[100] As a result, a completely diversified portfolio is only exposed to the systematic risk caused by macroeconomic trends in the broader economy.[101] In practice, investors pursue a diversified portfolio by holding assets in a variety of asset classes and by selecting securities in a variety of industries within those classes. In order to measure the effect of an additional security on the diversification of a broader portfolio, investors typically measure the security's average covariance with all other assets in the portfolio.[102] Therefore, the diversification benefits of adding a new security to a portfolio are linked to how the new security's returns vary in relation to existing securities in the portfolio. Assuming that the portfolio is completely diversified, then investors consider the security's covariance with the comprehensive market portfolio.[103]

The lack of quantitative data on SIB performance hinders the ability to calculate the diversification impact of holding a SIB investment. However, it is possible to apply theoretical

[99] Ibid.
[100] Frank K. Reilly and Keith C. Brown, *Analysis of Investments & Management of Portfolios*, 190.
[101] Ibid., 190.
[102] Ibid., 192.
[103] Ibid., 192.

analysis of how SIB investments likely vary in relation to the market portfolio in order to estimate the diversification benefits of a SIB investment. As discussed in Chapter 1, SIBs are a component of the emerging impact investment asset class, which provides capital for programs in the public, private, and nonprofit sectors. However, SIBs commit capital exclusively to the non-profit sector rather than the public or private sectors.[104] As a result, SIB returns are dependent on the operational success of the non-profit programs that they finance. To evaluate whether these returns are correlated with the market portfolio, it is necessary to determine if the success of the non-profit interventions is related to broader market conditions. Initially, non-profit success seems highly idiosyncratic with unpredictable success dependent on the operational practices of individual non-profits. However, broader market trends can have significant impact on the success of SIB interventions. The SIB model was born during a period of government austerity following the 2008 global financial crisis when government willingness to fund social programs drastically decreased.[105] Economic downturns force non-profits to seek new sources of capital, and SIBs fill the funding gap when governments reduce their appropriations for social programs. Therefore, demand for SIB financing increases during an economic downturn. Consequently, investors can capture a higher return when governments are more risk-averse in times of austerity. Theoretically, this relationship indicates that SIB returns are negatively correlated with the market portfolio as investors are compensated for the risk they take on as governments fail to fund social interventions. This negative correlation

[104] "Pay-for-Success Learning Hub: Investor Readiness Questionnaire," (Nonprofit Finance Fund, 2016).
[105] Meghan Joy and John Shields, "Social Impact Bonds: The Next Phase of Third Sector Marketization?".

means that SIBs could hold significant diversification benefits for investors seeking an asset that has an inverse relationship with market returns.

On the other hand, broader economic trends can complicate the measurement of an intervention's success, increasing the risk for investors whose returns are dependent on accurate measurement of the social program's impact. Consider a SIB intervention that is meant to improve job placement rates in an area of limited economic opportunity. In this case, an economic downturn could be a confounding variable that complicates measurement of the intervention's success as the number of available jobs decreases along with a slowing economy.[106] Evaluation of the SIB's predetermined metrics may report that the intervention has failed even when it has positive impacts on the targeted population. Therefore, the economic downturn would have a negative impact on the investor's returns, and the returns would be directly correlated with the broader market. This situation could be mitigated by introducing scientific evaluation methods such as control group comparison in order to avoid the effects of market downturns on intervention success.[107] Ultimately, the risk of inaccurate measurement is largely outside of the control of the private investor. In a SIB, impact measurement is outsourced to an independent evaluator that measures outcomes based on the terms of the original SIB contract.[108] The private investor can only exert control over this process if the investor proactively details the terms of impact measurement before the contract is written. This would require anticipating how measurement may be compromised by larger macroeconomic conditions. Thus, while inaccurate impact measurement may increase the risk

[106] Nicholas Bergfeld, David Klausner, and Matus Samel, "Improving Social Impact Bonds: Assessing Alternative Financial Models to Scale Pay-for-Success," 20.
[107] Ibid., 20.
[108] Emily Gustafsson-Wright, Sophie Gardiner, and Vidya Putcha, "The Potential and Limitations of Impact Bonds: Lessons from the First Five Years of Experience Worldwide," 7.

of the investor's position in a SIB, the investor does not likely have the ability to mitigate this risk in all situations.

After evaluating the expected returns and diversification qualities of SIBs, it appears that SIBs only satisfy the goals of a finance-first investor who is willing to take on the additional risk of a new financing vehicle and is seeking limited diversification benefits from the investment. The average expected return of 7.5% for a SIB indicates that investors are taking on more risk than they expect from traditional debt investments. At the same time, SIBs do not hold the tax deduction benefits of donating to a non-profit or the tax exemption benefits of financing a state or local bond. In summary, the above analysis shows that SIB investments are likely riskier than traditional debt instruments, provide some diversification benefits to investors seeking investments that correlate negatively to the market portfolio, and do not deliver the tax benefits of alternative bond investments. Thus, SIBs are capable of satisfying some, yet not all, of the goals of finance-first impact investors.

Topic 3.2: The Impact-First Investor

The impact-first investor is one who prioritizes social impact goals above financial goals when committing capital to an impact investment.[109] The degree to which impact-first investors emphasize impact over financial returns varies among investors; however, each impact-first investor will treat return on invested capital as a secondary concern. The goals of finance-first investors discussed in the previous section such as expected returns and diversification may still influence impact-first investors, but these finance-first factors will not be the main concerns of impact-first investors. Therefore, it is crucial to explore the goals of impact-first investors in order to evaluate the value of SIBs beyond their potential to generate financial returns.

[109] See Exhibit 1.1 in Chapter 1.

The purpose of this analysis is to better understand why impact investors would not simply make a donation to a non-profit rather than funding a SIB. Arguing that impact investors simply want to enact social change is not a sufficient explanation of why investors would choose a SIB rather than donating their capital.[110] This desire for impact is one shared by all impact investors, meaning it is a necessary, but not sufficient, condition for investors to choose to invest in a SIB. In order to encourage investors to employ the SIB structure to deliver impact rather than use other impact investing vehicles, SIBs must deliver some supplemental value beyond social impact. In order to differentiate and sustain the SIB model, SIB practicioners must demonstrate its ability to add value to the social impact system as a whole.

This requirement that SIBs must generate additional value beyond social impact is conceptually outlined in an article titled “Social Impact Bonds: New Product or New Package?” and written by two Wharton School professors, Mark Pauly and Ashley Swanson. Pauly and Swanson develop a conceptual framework to contrast the value of investing in a SIB against the value of funding the same non-profit program through a simple bond structure in which the investor loans the non-profit capital to fund the program and expects a return in the case of program success.[111] The authors find that investors should be neutral when deciding to finance a program through a SIB or a conventional bond as long as the probability of program success is unchanged by the financing structure.[112] This analysis ignores transaction costs, so the high transaction costs associated SIBs would introduce negative cash flows to the SIB option and lead the investor to choose a conventional bond structure. SIB intermediaries have estimated

[110] J.P. Morgan Global Research, “Impact Investments: An Emerging Asset Class,” 5.
[111] Mark Pauly and Ashley Swanson, “Social Impact Bonds in Nonprofit Health Care: New Product or New Package?,” (2013), 13.
[112] Ibid., 13.

that the expenses related to “legal fees, evaluation expenses, and investor due diligence costs” incurred during the life of a SIB total at least £12 million per SIB implementation.[113] Therefore, the costly transaction fees related to SIBs would bias investors to avoid SIB contracts and to use other less costly investment vehicles such as a conventional non-profit bond. Pauly and Swanson recognize that SIBs must add value beyond their basic social impact in order for investors to choose SIBs rather than alternative deal structures.[114]

The additional value that SIBs promise to deliver falls into two categories: 1) SIBs increase the probability of success of the non-profit program in the short-term, or 2) SIBs encourage long-term changes to the approach that society takes to solve social issues. If SIBs are able to achieve either of these two goals, they may be differentiated from alternative impact investment vehicles. Within these two categories of added value, SIBs may help private investors pursuing several impact-related goals:

1) Participate in project management to increase the likelihood of intervention success,
2) Support outcome-focused interventions and impact measurement,
3) Facilitate risk-taking in the non-profit sector, and
4) Reform how the government is involved in welfare programs.[115]

Each of these four goals delivers value by allowing investors to either increase the likelihood that the non-profit implementation is successful or shape dynamics within the non-profit sector

[113] Michael J. Roy, “Social Impact Bonds – Evidence-Based Policy or Ideology?,” 6.
[114] Mark Pauly and Ashley Swanson, “Social Impact Bonds in Nonprofit Health Care: New Product or New Package?,” 14.
[115] The term “risk-taking” in the third goal does not refer to financial risk, but rather it refers to the possibility that non-profits may implement more innovative, unproven projects if their projects are financed with a SIB rather than traditional government appropriations. This argument is analyzed later in this chapter.

as a whole. If SIBs satisfy these goals, investors may be influenced to employ SIBs rather than alternative investment vehicles or philanthropic donations to finance the same projects.

1) Participate in program implementation

Pauly and Swanson specifically address the concept that “investor effort,” or investor involvement in the implementation of a SIB-funded program, could increase the probability that the program is successful.[116] The ability to influence program success aligns significantly with existing impact investor concerns about the non-profit sector. In the survey of impact investors introduced in the previous section, the most commonly reported source of risk inherent to impact investments was “business model execution and management risk.”[117] 29% of investors ranked management of the non-profit program as a severe risk.[118] These concerns indicate that investors could be seeking financing structures that allow them to influence program success. Recently, this lack of confidence in project management skills in the non-profit sector has been parodied in government programs. In his book *The Fifth Risk*, Michael Lewis identifies poor project management as a significant risk to the United States government’s ability to adapt to changes on a global and local scale.[119] Where governments fail to skillfully manage social interventions, they can contract the work to non-profits and fund the interventions while outsourcing the implementation. SIB contracts are unique in that they were born to fill a gap in funding that occurred when governments retreated from funding social

[116] Mark Pauly and Ashley Swanson, “Social Impact Bonds in Nonprofit Health Care: New Product or New Package?,” 15.
[117] Rachel Bass, “Annual Impact Investor Survey: The Eighth Edition,” 46.
[118] Ibid., 46.
[119] Michael Lewis, *The Fifth Risk* (Waterville, ME: Thorndike Press, a part of Gale, a Cengage Company, 2019).

programs in the period of frugal appropriates following the financial crisis of 2008.[120] Thus, SIBs provide an opportunity for impact investors to step in where governments have failed to fund or manage social interventions and work intimately with non-profits to grow the probability of intervention success. This influence over project management is similar to the model of private equity funding in which investors take a significant stake in a company, drive management to improve its operations, and then sell the stake in the company to capture the value generated through the improvements.[121] In a SIB, private investors are also adding value to the management of the underlying asset by consulting with non-profit managers to improve the success rate of the social programs.

When engaging in a SIB contract, investors can influence the intervention by sitting on the executive oversight committee managing the project, by assuming a position on the non-profit's board of directors, or by shaping the intervention as it is planned prior to investment. Beyond these formal methods of influence, investors can act as informal advisors by reacting to regularly delivered reports on the intervention's progress. Tracking of investor involvement in existing SIBs provides support for the conclusion that investors want to exercise considerable influence over the management of the intervention. According to the Nonprofit Finance Fund's SIB dataset, 14 of the investors in the sample of 20 in-progress SIBs sat on the social program's steering committee as voting or non-voting members.[122] The majority of these committee meetings took place at quarterly intervals while some occured each month and others less

[120] Meghan Joy and John Shields, "Social Impact Bonds: The Next Phase of Third Sector Marketization?," 41.
[121] Ben F Margow, "The Evolving Secondary Market for Private Equity," 2.
[122] "Pay for Success Project Matrix" (New York City: Nonprofit Finance Fund, 2018). See https://payforsuccess.org/sites/default/files/excel-files/PFS-Project-Matrix.xlsx for dataset.

frequently.[123] In the remaining six SIBs, one investor was intimately involved in the planning of the intervention while the remaining five deals did not include a structural element for investors to engage in project management.[124] Also, in 19 of the 20 SIBs, nonprofits were required to publish quarterly or annual reports to update investors on the intervention's progress and potential for success.[125] These reporting requirements hold non-profits accountable to detail how they are driving impact, communicating information that non-profits may not communicate to philanthropic donors or hands-off investors. Finally, in 13 of the contracts, investors held an early-exit option that would release them from their contractual obligations and return their capital if the program underperformed early in the project timeline.[126]

All of the above evidence illustrates that SIB investors want to engage intimately in the management of the non-profit intervention. Throughout the life of a SIB intervention, investors have the opportunity to exert influence over the management of the intervention and inject private sector discipline into the non-profit's intervention. Impact-first investors who wish to increase the probability of a program's success would find these structural elements of SIBs valuable compared to alternative impact investments that distance investors from intervention management. Pauly and Swanson introduce this ability to shape project management as a significant variable adding value to the SIB structure.[127] However, it is yet to be proven whether investor involvement in project management translates into an improved probability of success

[123] Ibid.
[124] Ibid.
[125] Ibid.
[126] Ibid.
[127] Mark Pauly and Ashley Swanson, "Social Impact Bonds in Nonprofit Health Care: New Product or New Package?," 14.

for non-profit social programs. The above analysis assumes that non-profit interventions will be more likely to succeed if private investors are able to introduce private sector disciplines to the non-profit space. This assumption has not been proven as the SIB model is too young to have produced results to show if SIB interventions tend to succeed as a result of private sector influence. Nevertheless, impact-first investors are likely to value the opportunity to influence project success.

2) Support outcome-focused interventions and impact measurement

Private investors may enter SIB contracts because they want to orient social interventions toward results and incentivize impact measurement in the non-profit sector. A key element of the SIB model is that project success is judged according to predefined metrics by an independent evaluator.[128] This structural element is frequently acknowledged as a key differentiator between the SIB model and other impact investment vehicles. Following a Social Finance and Bank of America joint study of SIBs, Bank of America issued a report that identified impact measurement as the fundamental value-adding component of the SIB model.[129] The emphasize on impact measurement illustrates that private investors desire interventions that are results-oriented. These projects link government expenditures to successful results that are proven by data. In the event of project failure, the collected data can be used to improve future results. As discussed in Chapter 2, the first SIB implemented in the United States failed to reduce prison recidivism rates at the Rikers Island correctional facility in New York.[130] While the

[128] Emily Gustafsson-Wright, Sophie Gardiner, and Vidya Putcha, "The Potential and Limitations of Impact Bonds: Lessons from the First Five Years of Experience Worldwide," 7.
[129] "Press Release: Bank of America and Social Finance Inc. Study Reveals Potential to Expand Services for Military Veterans Through Innovative Pay for Success Programs," (Dow Jones & Company, 2015).
[130] Paul Burton, "No Success Like Failure: N.Y. Sees Social Impact Bond Pluses," 12.

intervention failed, it maintained a "laser-like focus" on collecting data, allowing the project managers to identify why the intervention failed and how it can succeed in the future.[131] The consequence of results-oriented programs is that these outcomes must be verified through data, and data allows non-profit professionals to adapt to failure. Therefore, collection and analysis of data in the Rikers Island SIB supports the claim that SIBs successfully incentivize non-profits to focus on results, measure impact, and analyze data.

The majority of SIBs also have structural elements that require non-profit managers to report and react to data throughout the lifetime of the project. Of the 20 projects included in the Non-profit Finance Fund dataset, 13 require interim data reports at regular intervals as the intervention is implemented.[132] In these 13 cases, data reports were related to future investor capital, meaning investors could alter their commitment of capital based on the interim reports. If a report communicated weaker-than-expected impact, the investors could use steering committee meetings and board of directors meetings to put pressure on the non-profit managers to improve the intervention or risk losing access to capital. In each of these cases, data is the driver of change in the intervention as data provides the basis for managers to report their results and react to weak results.

Overall, SIBs are unique in the impact investment market because they require data collection and adaptation to intermediate results. If impact-first investors are seeking to increase the number of non-profits that perform data-based interventions, then SIBs are likely successful in promoting this quantitative rigor.

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[131] James Anderson and Andrea Phillips, "What We Learned from the Nation's First Social Impact Bond."

[132] "Pay for Success Project Matrix" (New York City: Nonprofit Finance Fund, 2018). See https://payforsuccess.org/sites/default/files/excel-files/PFS-Project-Matrix.xlsx for dataset.

3) Facilitate risk-taking in the non-profit sector

The third goal that impact investors may also be seeking to achieve is to create a funding vehicle that promotes the implementation of more innovate non-profit programs. This concept of supporting more innovative projects is discussed as "facilitating risk-taking" because the investors are shifting the risk of program failure away from governments and non-profits and onto themselves. While investors expect to be compensating for taking on this risk, the goal remains that non-profits will implement more innovative projects if the risk of program failure is held by the private investor.

In recent years, academic analysis of the non-profit sector has identified a significant gap in the amount of risk-taking capital available to non-profits and the number of non-profits innovating new solutions to social problems.[133] SIBs have been identified as a new financing structure that could encourage risk-taking in the non-profit landscape where governments have failed to adequately subsidize non-profit risk-taking.[134] Some private investors may choose to invest in SIBs because they seek to enable the non-profit sector to take more risks.

Little empirical evidence is available to suggest that SIB-funded interventions incorporate more experimentation than traditional social programs. However, there is conceptual support to conclude that SIBs fund interventions with an experimental structure. Some academic evaluators of SIBs argue that there is a tension between experimentation and the predetermined metrics that form the basis for evaluating SIB success. The argument is that predetermining successful outcomes for an intervention prevents experimentation in how the

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[133] Jed Emerson, Tim Freundlich, and Jim Fruchterman, "Nothing Ventured, Nothing Gained: Addressing the Critical Gaps in Risk-Taking Capital for Social Enterprise," (Oxford University Press, 2011), 21.
[134] Annie Dear et al., "Social Impact Bonds: The Early Years," 17.

intervention is implemented.[135] However, this argument operates under a flawed assumption that outlining success preempts how that success is achieved. The predetermined metrics in a SIB contract only relate to how success is defined. For example, in the Rikers Island SIB, recidivism rates had to drop 8.5% in order for the project to be considered a success.[136] The predetermined outline of a successful project did not impose a restriction on how the project would be implemented, so the non-profit still had the freedom to innovate as the project took place. In fact, the introduction of a predetermined metric for success imposed an experimental structure on the project. The non-profit was required to compare recidivism rates in its target population to rates in a control group.[137] Therefore, the evidence-based nature of the project did not undermine the non-profits ability to take risks but rather introduced an experimental framework to the intervention.

Nevertheless, structuring non-profit interventions as evidence-based experiments does not guarantee that the managers of the interventions will take more risks by implementing more innovative projects. Risk-taking is directly linked to an aversion to failure. To encourage risk-taking, SIBs must reduce the non-profit manager's wariness of failure. There is little evidence to support this conclusion. While SIBs hold non-profit managers accountable through predetermined success scenarios, they do not completely remove the risk of failure for the non-profits themselves. A non-profit that fails is unlikely to receive future funding from private investors or the government, so the non-profit managers would still avoid failure while

[135] Florentine Maier, Gian Paolo Barbetta, and Franka Godina, "Paradoxes of Social Impact Bonds," 8.
[136] "Pay for Success Project Matrix" (New York City: Nonprofit Finance Fund, 2018). See https://payforsuccess.org/sites/default/files/excel-files/PFS-Project-Matrix.xlsx for dataset.
[137] Ibid.

engaging in a SIB contract.[138] A SIB is only effective in transferring risk of failure from the government to the private investor, but it does not have a structural element that shifts the non-profit's risk of failure to another stakeholder. Thus, SIBs are unlikely to satisfy the investor's goal of encouraging additional risk-taking in the non-profit sector. Even as SIBs impose an experimental structure on non-profit interventions, there is little evidence that SIB-funding programs tend to be more innovative than other non-profit programs.

4) Reform how the government is involved in welfare programs

The final goal that impact-first investors may be pursuing with SIB contracts is to reform the nature of welfare in the United States and redesign how social problems are solved. The SIB model is often considered a more localized approach to generating social benefit because individual non-profits replace governments as the primary organizations planning and implementing social interventions.[139] Meghan Joy and John Shields of Ryerson University argue that SIBs offer a "local and flexible program-based service design intended to challenge a more top-down, expert-driven, and siloed government approach to social policy."[140] The argument that Joy and Shields promote is that SIBs are unique in removing governments from the planning stages of social programs, minimizing the size of welfare states and directing government dollars to more local non-profits that have delivered quantified results.[141] Therefore, by committing capital to a SIB, private investors can help change how society

[138] Meghan Joy and John Shields, "Social Impact Bonds: The Next Phase of Third Sector Marketization?," 46.
[139] Christian Berndt and Manuel Wirth, "Market, Metrics, Morals: The Social Impact Bond as an Emerging Social Policy Instrument," (2018), 31.
[140] Meghan Joy and John Shields, "Social Impact Bonds: The Next Phase of Third Sector Marketization?," 43.
[141] Ibid., 43.

approaches social problems by substituting scalable non-profit solutions for traditional large government welfare programs.

The framing of SIBs as a mechanism to reform the welfare system introduces a political element to the discussion of SIBs because welfare reform is a politically charged issue. In general, conservative political activists tend to support reducing the size of government welfare programs. Thus, conservative activists may view supporting SIBs as a new method of social intervention that redirects government involvement in social issues. At the same time, the bottom-up, localized nature of SIB interventions may also resonate positively with more liberal activists.[142] This means that the framing of SIBs as a new approach to solving social problems can be viewed positively by both right and left-leaning activists, generating broad political support for the SIB model.

While there are potential political benefits to framing SIBs as a reform of government social intervention, there is little empirical support that the SIB model has the potential to significantly change on how society resolves social inequities. With only $218 million of SIB capital raised in the United States through 2018, investors are investing only a fraction of the total invested in social programs by local, state, and federal governments across the United States.[143] While SIBs are a model for replacing government interventions with programs led by smaller non-profits, SIBs have not scaled to a size that can materially impact government welfare as a whole.[144] Therefore, the small size of the SIB market relative to government-

[142] Ibid., 44.
[143] "Pay for Success Project Matrix" (New York City: Nonprofit Finance Fund, 2018). See https://payforsuccess.org/sites/default/files/excel-files/PFS-Project-Matrix.xlsx for dataset.
[144] The slower-than-expected growth of the SIB model will be further discussed in Chapter 4.

funded social welfare limits the ability of SIBs to realize broad welfare changes in American government.

In conclusion, empirical and conceptual evidence supports the conclusion that SIBs are effective investment vehicles for impact-first investors seeking to intimately participate in the management of social interventions and to incentivize data collection in the non-profit sector. Encouraging data collection could help shape the broad non-profit sector by advocating for a shift toward quantitative analysis and impact measurement in non-profit projects. However, SIBs are unlikely to help impact-first investors promote risk-taking in non-profit project management or achieve broader welfare reform in the United States. Thus, SIBs cater to the goals of a specific subset of impact investors: those wanting to inject their private sector disciplines into the management of social interventions and those seeking to encourage data collection.

CHAPTER 4: THE FUTURE OF SOCIAL IMPACT BONDS

Topic 4.1: The Mismatch Between Social Impact Bond Potential and Realized Impact

Social Impact Bonds make up only a fraction of the total revenue base that non-profits use to finance their social programs. Non-profit revenues and private charitable contributions have grown steadily following the global financial crisis of 2008. According to data compiled from annual non-profit IRS filings, total revenues in the non-profit sector exceeded $2.5 trillion in 2015, and private charitable giving peaked at $410 billion in 2017.[145] Figure 4.1 shows that revenues and charitable contributions in the non-profit sector are estimated to exceed $3 billion and $469 billion, respectively, in 2020 assuming that the constant annual growth rate of 4.5% observed in the recent decade remains constant. Private charitable contributions make up only about 15% of total non-profit revenues while earned revenues, government-sponsored grants, and investment income contribute the bulk of remaining revenues.[146] There is a significant link between the growth of charitable giving and the growth of impact investing: according to a recent survey, 79% of impact investors have a history of charitable giving and consider contributing to non-profits "very important."[147] Interest in impact investing is linked to past charitable giving, and impact investing has grown at a similarly rapid pace over the last decade. However, the Social Impact Bond has not captured a significant portion of the growth in non-profit revenues or impact investing. Since the implementation of the first SIB in the United States in 2013, SIBs have raised $219 million from impact investors.[148]

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[145] Brice McKeever, "The Nonprofit Sector in Brief 2018," (National Center for Charitable Statistics, 2018).
[146] Brice McKeever, "The Nonprofit Sector in Brief 2015: Public Charities, Giving, and Volunteering," (National Center for Charitable Statistics, 2015).
[147] "Impact Investing: At a Tipping Point?," (Fidelity Charitable, 2018), 8.
[148] "Social Impact Bond Global Database," (London, UK: Social Finance, 2018).

Exhibit 4.1: Growth of Non-Profit Revenue and Private Charitable Contributions

2005 - 2015 ($ billions)

	2005	2010	2015	2020 (Est.)[b]
Revenue (all registered nonprofits)	1,633	2,053	2,545	3,171
% Change		*26%*	*24%*	*25%*
Private Charitable Contributions	292	288	376	469
% Change[a]		*-1%*	*31%*	25%

[a]Private charitable contributions dropped significantly during the global financial crisis

[b] Estimate maintains 4.5% constant annual growth rate of revenues and private charitable contributions

This means that the total amount of capital contributed through SIBs in the seven years since the investment vehicle's inception amounts to only 0.05% of private charitable contributions in a single year. In context of the broader non-profit sector, SIBs have failed to grow quickly enough to represent a significant portion of capital available to non-profits. It is unlikely that the adoption rate of the SIB model will increase at a fast enough rate to have a large impact on the non-profit sector in the coming years. In the United Kingdom, the SIB market is more fully developed as 47 SIB-funded non-profit programs have been implemented since 2010.[149] However, only approximately $60 million in total has been raised through these contracts.[150] Therefore, the SIB model has failed to mobilize private capital at a large scale even in the United Kingdom where SIBs have had more time to develop and more contracts have been established.

The lack of the SIB model's absolute impact relative to the amount of total capital contributed to non-profits does not mean that the contracts have failed to grow since their inception. As illustrated in Exhibit 2.2 in Chapter 2, the number of SIB contracts formed globally

[149] Ibid.
[150] Ibid.

reached 60 just six years after the first SIB was implemented, and the total number of SIBs established around the world exceeds 130 as of the end of 2018.[151] However, academic literature and recent stakeholder reports frequently investigate the "scalability" of SIBs as the growth has not achieved the expected level of absolute impact.[152] The potential of Social Impact Bonds have not been realized, and their scalability is unproven. Researchers from the *Stanford Social Innovation Review* summarize this disappointing impact:

> Social Impact Bonds hold extraordinary potential. They represent a more effective way to distribute grant dollars, catalyze investment in the nonprofit sector, unlock impact data, and foster greater transparency and accountability. For a nonprofit sector that to date has been shackled with an opaque and inefficient capital market, any of these benefits would be transformative…but there is a problem. Despite their potential, SIBs have failed to gain meaningful traction.[153]

Solutions to the problem of scalability have traditionally focused on generating government buy-in, increasing the number of intermediaries, and standardizing impact measurement tactics; however, few responses have focused on increasing enthusiasm from private investors. The exploration of private investor goals in Chapter 3 provides a basis to recommend adaptations to the SIB model that can grow investor interest in the contracts and increase funding available to non-profits.

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[151] Ibid.
[152] "Scalability" in this context is not referring to the traditional definition of "scalability" in a financial context. In financial markets, "scalability" refers to the ability of a financial institution or an investment vehicle to function under increasing investment size or scope of operations. In this context, "scalability" refers to the ability of SIBs to achieve their full impact potential by gaining traction in markets and becoming a preferred impact investing instrument.
[153] Lindsay Beck, Catarina Schwab, and Anna Pinedo, "Social Impact Bonds: What's in a Name?," 1.

The remainder of Chapter 4 explores adaptations to the SIB model that could alter the investment vehicle to better satisfy investor goals and encourage more capital to enter the SIB market. As the non-profit sector and private charitable contributions continue to grow, SIBs must adapt to capture more investor interest and have greater absolute impact on the non-profit sector.

Topic 4.2: Adjusting Social Impact Bond Terminology

The first adjustment to the SIB model that could further engage private investors is a change in the financial classification of these instruments. Currently, the title "Social Impact Bond" promotes the perception that SIB returns mirror the characteristics of traditional bond returns. When intermediaries attempt to recruit new private investors, referring to SIBs as "bonds" can become a "stumbling block that requires explanation, detracting from the positive and innovate aspects of pay-for-performance instruments."[154] Adjusting the name of SIBs to more accurately characterize the nuances of these contracts could better align investor perception of SIBs with the realities of the contract's returns.

This sentiment has been recognized in more formal professional discussions of SIBs. A recent lecture on "Aligning Investment Objectives and Social Objectives" at the international corporate law firm Morrison & Foerster identified the existing title of the bonds to be a significant factor limiting the scalability of SIBs.[155] In the United States, industry conversation often diverts from the traditional "Social Impact Bond" name and refers to any contract incorporating a SIB financing approach as a "Pay for Success Contract." In fact, the Nonprofit Finance Fund's United States website focusing on Pay for Success Contracts avoids using

[154] Ibid., 1.
[155] "Social Impact Investing and Green Bonds," (Morrison & Foerster LLP, 2015), 13.

traditional SIB language and defines SIBs as "not a bond" but a "financing approach" to deliver social impact.[156] Altering the SIB title could promote the funding vehicle's credibility in discussions with financial professionals inclined to call attention to the confusing nature of the current terminology.

A new title for SIBs must more precisely reflect the returns that investors expect from their investments. As discussed in Chapter 3.1, the expected returns associated with SIBs tend to exceed the returns that impact investors realize in more traditional bond arrangements. SIBs are riskier than other impact investment bonds, so investors expect higher returns from the contracts. Some of these differences in expected returns, however, may be due to the characteristics of SIB return profiles rather than variations in the underlying risk of success in SIB-funded programs. SIB returns do not share the same repayment schedule, return variability, or contract standardization of traditional fixed-payment bonds.

Bonds typically return a fixed interest payment periodically that is predetermined as a percentage of the face value of the bond.[157] After these interest payments are returned at regular intervals, the investors are repaid the fixed amount of the principal investment on a prearranged date.[158] Therefore, both the magnitude and timing of bond interest payments are fixed at the time of initial investment, and these payments are made as long as the bond issuer does not default on its obligations. SIB returns, on the other hand, are often contracts in which the initial investment is repaid on a predetermined date if performance metrics are met, but no

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[156] "Pay-for-Success Learning Hub: Investor Readiness Questionnaire," (Nonprofit Finance Fund, 2016).
[157] Frank K. Reilly and Keith C. Brown, *Analysis of Investments & Management of Portfolios*, 554.
[158] Ibid., 554.

interim payments are made before this date.[159] This principal-only repayment structure mirrors that of a zero-coupon bond, a type of bond that does not pay interest prior to the return of the principal.[160] However, unlike the principal repayment in a zero-coupon bond, returns to SIB investors are often variable, based on the incremental success of the underlying non-profit intervention. Also, while some SIBs do incorporate intermediate payments that may mirror bond interest payments on the surface, even these payments are tied to incremental program success. Even SIBs that are structured with payments at regular intervals have payments that are variable rather than fixed. Finally, few SIBs provide the principal protection that is standard of traditional corporate or Treasury bonds. Some SIBs, including the Rikers Island project in New York, introduce a secondary funder to guarantee a portion of the investor's upfront investment in the case of program failure.[161] However, this principal guarantee is not a standard feature of the SIB structure. In general, SIBs do not offer the same principal protection as traditional bonds. All of these differences between SIB returns and bond returns show that the new SIB terminology should not perpetuate the assumption that SIB returns mirror bond returns.

Associating SIBs with bonds also carries flawed assumptions that SIBs are standardized investment products which are available to trade on a secondary market. SIBs are highly customizable investment vehicles that lack the standardization of traditional bonds. Data of existing SIB contracts shows that many of the elements in the SIB structure can differ between contracts including the terms of repayment, the length of the intervention, the degree of

[159] "Pay for Success Project Matrix" (New York City: Nonprofit Finance Fund, 2018). See https://payforsuccess.org/sites/default/files/excel-files/PFS-Project-Matrix.xlsx for dataset.
[160] Frank K. Reilly and Keith C. Brown, *Analysis of Investments & Management of Portfolios*, 573.
[161] Eduardo Porter, "Wall St. Money Meets Social Policy at Rikers Island," (The New York Times, 2015).

investor involvement in the intervention, and the investor's ability to exit the contract early.[162] While all of these dimensions of customization allow intermediaries to tailor these contracts to stakeholder goals, the customization prevents SIBs from becoming a standardized investment product. The lack of standardization is a barrier to the creation of a secondary market for SIBs to be traded among investors. Without a secondary market SIB investors are unable to easily liquidate their positions before the contract ends, increasing the riskiness of their position. This trade-off between customization and liquidity risk is evident in the distinction between forward and futures contracts. Futures contracts are standardized trade agreement that investors can trade in a secondary market while forward contracts are traded over-the-counter as a result of their customization.[163] In a similar way to SIBs, the customization of forward contracts is a barrier to their introduction to public exchanges. The current "bond" terminology associated with SIBs holds the assumption that SIBs are standardized and traded like bonds.

All of this evidence illustrates that SIBs hold few characteristics that reflect those of traditional bonds. At the same time, SIBs are fundamentally different than equity investments because investing in a SIB does not equate to purchasing a stake in the non-profit implementing the program. At their very foundation, SIBs are commitments of capital with an agreement to repay these funds in the future if certain performance targets are achieved. The title "Social Impact Security" provides a new name that reflects the fundamental structure of SIBs.[164] This new title avoids connecting SIBs with either bonds or equity investments and is broad enough to allow SIBs to change dynamically without the limitations of the existing name. "Social Impact

[162] "Pay for Success Project Matrix" (New York City: Nonprofit Finance Fund, 2018). See https://payforsuccess.org/sites/default/files/excel-files/PFS-Project-Matrix.xlsx for dataset.
[163] Frank K. Reilly and Keith C. Brown, *Analysis of Investments & Management of Portfolios*, 736.
[164] Lindsay Beck, Catarina Schwab, and Anna Pinedo, "Social Impact Bonds: What's in a Name?," 2.

Security" is a promising name that avoids issues derived from the existing name while not encouraging investors to impose new expectations on the investment vehicle.

Topic 4.3: Opposing the Repackaging of Social Impact Bonds as Impact Securities

Researchers from the Stanford Social Innovation Review argue that industry professionals should do more than simply change the name of SIBs, but rather they should also repackage SIBs into tradable, standardized investments.[165] This sentiment is often echoed in academic discussions regarding the potential scalability of SIBs, including the lecture at Morrison & Foerster previously mentioned.[166] Figure 4.2 summarizes the adaptations that the researchers argue could transition the existing, customizable SIB vehicle into a tradable security.

The main theme of these proposed changes is that SIBs must become standardized in order for a secondary market to develop. Standardization is meant to reduce liquidity risk, broaden the base of SIB investors, and increase the market data available for investors to make informed decisions before committing capital. The foundational element of this new standardized model is an "impact security issuer" that would coordinate all communications among investors seeking to invest in a SIB.[167] These "impact security issuers" are different than the intermediaries in a SIB contract because the issuers facilitate trades of standardized impact securities on a secondary market while intermediaries build the initial SIB contracts that are later packaged into standardized securities. Essentially, this "social impact security" model would introduce a new stakeholder to serve as a broker of standardized SIBs. In the trade-off

[165] Ibid., 3.
[166] "Social Impact Investing and Green Bonds," (Morrison & Foerster LLP, 2015), 14.
[167] Ibid., 16.

between customization and liquidity, this model would prioritize liquidity by standardizing SIBs so that they can be freely traded on a secondary market exchange.

Figure 4.2: The Social Impact Security Model[168]

IMPACT BOND vs. IMPACT SECURITY

	CURRENT IMPACT BONDS	VS. IMPACT SECURITY	IMPACT SECURITY BENEFITS
NOMENCLATURE	*Impact Bonds* are not bonds and do not perform like traditional fixed income products with guaranteed returns	*Impact Securities* are standard debt securities with variable returns tied to performance	Accurate nomenclature avoids market confusion
FINANCING STRUCTURE	Pay for Success	Pay for Success	Both are performance driven structures that link funding with impact
FINANCIAL INSTRUMENT	Bespoke Contracts: • LLC or LP Interests • Bilateral or Multi-Party Contract or Arrangement • Commercial loans with contingent payouts	Standardized Deal Structure: • Debt security • Exempt from SEC registration if issued by a nonprofit, foundation, or a government or supranational entity	Standardized, familiar documentation Easy replication Transaction speed Reduced reporting
MARKETING and INVESTOR ACCESS	Private placement limited to accredited investors	Public offering open to all investors	Increased access by broader group of investors
TRANSFERABILITY and LIQUIDITY	Not easily transferable	Easily held in brokerage account and transferable	Broader investor market Increased potential for liquidity
REPORTING	No public reporting required	Enables public disclosures and reporting	Increased transparency Efficient pricing
TAX REPORTING	Form K1	Form 1099	Investor preferred

The end goal of this new market is to scale SIBs beyond their current over-the-counter transaction model. The Stanford researchers argue that standardizing the contracts and trading them via an impact security issuer would "offer consistent, familiar documentation that would

168 Lindsay Beck, Catarina Schwab, and Anna Pinedo, "Social Impact Bonds: What's in a Name?," 3.

allow for easy replication and faster transaction speeds, resulting in a more scalable product."[169]

Adjusting the SIB model to achieve impact at scale is a necessary next step for the SIB model after it is renamed; however, the Social Impact Security Model described above is misaligned with some of the investor goals discussed in Chapter 3. First, standardized SIBs in the Social Impact Security Model would not allow SIB investors to engage in the project management of the SIB-funded social program.[170] SIBs are differentiated from other funding mechanisms partly because they allow investors to maintain close proximity to the non-profit programs that the investors fund. The Social Impact Security Model introduces an impact security issuer that widens the gap between private investors and non-profit managers. The new structural element of a security issuer transforms the SIB model into an arms-length transaction that reduces the investor's ability to play an integral role in the non-profit intervention. The analysis of private investor incentives shows that investors would choose customization over liquidity, but the Social Impact Security Model abandons customization in favor of standardization.

SIB investors have also shown little appetite for exiting projects early, meaning the liquidity benefits of the Social Impact Security Model are not necessarily adding significant value from the investor's perspective. As discussed in Chapter 3, many SIBs do incorporate early exit options that grant investors some liquidity in the case of intermediate program failure.[171] However, many of the contracts also include terms that allow investors to reinvest proceeds to

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[169] Ibid., 3.
[170] See Topic 3.2 for analysis of these findings.
[171] "Pay for Success Project Matrix" (New York City: Nonprofit Finance Fund, 2018). See https://payforsuccess.org/sites/default/files/excel-files/PFS-Project-Matrix.xlsx for dataset.

extend the life of the non-profit program. For example, in a $17 million SIB implemented in South Carolina, investors have agreed to recycle all funds back into the intervention in the case of program success.[172] This illustrates that investors are not searching for the liquidity benefits that the Social Impact Security Model, but rather they are extending the time horizon of the projects when the interventions succeed. Therefore, the Social Impact Security Model abandons investor desire for customization in order to prioritize liquidity even while investors indicate that they prefer customization over liquidity. This means that the Social Impact Security Model would undermine the ability of SIBs to satisfy the investor goals identified in Chapter 3. However, a key lesson can be learned from this analysis: adjustments to the SIB model must maintain a significant level of customization for investors to uphold their close proximity to the management of the non-profit program.

Topic 4.4: Adapting the Social Impact Bond to Match Investor Desire for Customization

Developing a secondary market through contract standardization does not promise to grow SIBs beyond their current scale, but other adjustments can be made to the SIB model to generate more buy-in from private investors. First, investors could play a more active role in developing the non-profit interventions that they plan to fund. SIB interventions are often fully designed before investors are recruited for funding. For example, a SIB in development at the Texas Education Agency is forming in the absence of any involvement from potential investors and will be completely developed before an intermediary steps in to recruit new investors.[173] Unfortunately, this process of conceiving the non-profit program without investor involvement denies investors the ability to instill private sector disciplines in the non-profits that they help

[172] Ibid.
[173] Elia Simons, "Math Innovation Zones," (The Texas Education Agency, 2019).

fund. The intimate connection between private investors and non-profit managers is a major point of differentiation for the SIB model, and this collaboration should be initiated as early as possible. For example, private investors could be included in the initial program development discussions as non-profits begin designing the social program that they would like a SIB to fund. Currently, these discussions take place before the investor is involved in the SIB arrangement, but including investors in these discussions could generate an investor's sense of ownership over the non-profit program. SIBs hold "no advantage over traditional financing arrangements in attracting capital to social programs when they are formed as arms-length transactions," so accelerating the connection between investors and non-profit managers can increase the value of the SIB model.[174]

Once investor engagement is established early in the life of the intervention, investors should remain intimately involved in program management until repayment occurs. In existing SIB contracts, investors typically have the opportunity to receive progress reports and attend project steering committee meetings at regular intervals.[175] The level of engagement varies among projects, and some SIB contracts do not outline a specific plan to keep investors involved in the implementation.[176] However, the frequency of meetings between investors and non-profit managers is typically limited to annual or quarterly steering committee meetings, reducing the impact that investors can have on project management. More frequent and intimate meetings between investors and non-profit managers can help maximize the value that private investors add to SIB-funded interventions.

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[174] Mark Pauly and Ashley Swanson, "Social Impact Bonds in Nonprofit Health Care: New Product or New Package?," 3.
[175] "Pay for Success Project Matrix" (New York City: Nonprofit Finance Fund, 2018). See https://payforsuccess.org/sites/default/files/excel-files/PFS-Project-Matrix.xlsx for dataset.
[176] Ibid.

Transaction costs of developing SIB investments could also be reduced over time. The transaction costs related to the formation of SIB contracts are uniquely high, and measuring impact requires expensive experimental trials when verifying results.[177] Developing a consistent process for designing SIB-funded interventions, recruiting private investors, and coordinating with government outcome funders will reduce transaction costs. At the same time, impact measurement is a developing field in which costs will likely drop over time. As measurement techniques are proved effective in successive SIB implementations, a standard process for measuring outcomes could develop. This would reduce the cost of impact measurement because outcome evaluators will be able to apply proven techniques to new SIBs rather than innovate new approaches to measuring impact with each new SIB. Reducing these sources of costs can lower barriers of entry for private investors exploring impact investing opportunities that deliver value beyond traditional philanthropy.

Finally, consistent funding and support from governments is crucial to convincing private investors that outcome repayment will occur in the event of program success. The complicated process of government appropriations introduces a new source of uncertainty, adding a risk factor to the existing risk that investors take on in a SIB contract. This risk can be mitigated if federal, state, and local governments appropriate a clearly defined amount of money during each legislative session to fund future SIB projects. This process has begun at some levels of government in the United States. Several states have begun to develop independent funds for supporting SIB interventions, including Massachusetts where lawmakers

[177] "Development-Impact Bonds Are Costly, Cumbersome-and Good," The Economist (The Economist Newspaper, 2018).

established a fund of $50 million to support the SIB industry.[178] Appropriations at the level of the United States federal government have shown a similar commitment to funding SIBs, including an Obama Administration 2015 budget that called for $300 million for the SIB industry.[179] This trend to establish stable SIB funding sources can encourage investors to commit capital to SIBs as trust increases in the government's commitment to the industry. Also, the government could develop tax regulations that reduce the uncertainty of how SIBs will be taxed in the future. As discussed in Chapter 3, it is not clear whether SIBs will receive a preferential tax status in the future. However, residual tax benefits could encourage more investors to commit capital to SIBs. These tax benefits could take the form of tax exemptions, such as those granted to interest income on state and local bonds, or preferential tax rates, such as those given to capital gains and dividends income on equity investments.

In all, these recommendations provide a roadmap for the SIB model to better satisfy the goals of private investors, increasing the likelihood that SIBs will grow their impact in the future. While some researchers have suggested that a secondary market of impact securities could help SIBs grow to a larger scale, this secondary market would undermine the private investor's desire to remain intimately involved in the implementation of their SIB-funded social programs. Rather than develop a secondary market, SIB practitioners could take alternative steps to better satisfy investor goals. These steps include involving investors in the design of the non-profit programs that they will fund, reducing transaction costs, and lobbying for increased government support for the SIB model in the form of established funds to underwrite SIBs and regulations that give investors tax benefits for financing SIBs. In the end, these changes can

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[178] Massachusetts State Legislature. House of Representatives. "An Act Establishing the Social Innovation Financing Trust Fund," H.R. No. 4219. 2011 - 2012 Regular Session. Web.
[179] Robert Milburn, "A Novel Way to Finance Social Good," (Dow Jones & Company, 2015), 1.

help the SIB model better satisfy investor goals and, hopefully, grow the pool of capital available for SIB-funded non-profit programs.

CONCLUSION

The trend of growing investor demand for impact investments creates an opportunity for non-profits to access new sources of capital. The Social Impact Bond is a unique investment vehicle that allows investors to pair financial returns with social impact goals in performance-based contracts. At the time of their inception, SIBs were labeled a ground-breaking financial innovation that could provide sustainable funding for non-profits while shifting the risk of program failure from government funders to private investors. This promising form of non-profit funding sits at the intersection of financial markets, public policy, and non-profit interventions, linking several stakeholders with a common goal to achieve philanthropic objectives.

Combining the resources of SIB stakeholders holds exceptional potential to deliver previously inaccessible funding to non-profits in order to achieve impact. However, the unique potential of SIBs has not been realized at a scale significant enough to reshape the market for non-profit funding. Rather than revolutionizing non-profit access to capital, SIBs have failed to meet expectations of growth and impact. This divergence between declared potential and realized impact warrants further research into whether SIBs actually satisfy the unique goals of their stakeholders. This thesis explored SIBs from the perspective of the private investor in order to evaluate whether SIBs allow private investors to achieve their financial and philanthropic goals.

The analysis in previous chapters illustrates that SIBs satisfy only a limited number of investor objectives. First, SIBs allow private investors to incentivize outcome-based program design and performance measurement in the non-profit sector. SIBs are unique in that they provide a vehicle with which investors can pursue altruistic goals while achieving the secondary objective of injecting private sector disciplines into non-profit project management. The performance-based nature of the SIB contract enables investors to achieve this outcome. Additionally, SIBs allow investors to become intimately involved in the management of non-profit interventions. For private investors, the value proposition of a SIB contract is that investors can help oversee the implementation of a non-profit program. This management opportunity, along with the opportunity to introduce outcome-based practices in the non-profit sector, encouraging private investors to commit capital to a SIB rather than to simply donate funds to a non-profit.

On the other hand, SIBs fail to facilitate risk-taking in non-profit interventions because non-profit program managers remain risk averse as they implement SIB-funded programs. SIBs also do not provide investors the financial returns that they would typically expect to receive from traditional bonds. SIB returns do not mirror bond returns in terms of magnitude or payment schedule. This means that SIBs likely do not satisfy the goals of finance-first impact investors searching for returns similar to bonds. Renaming SIBs to "Social Impact Securities" could reduce the confusion derived from the current terminology and better align investor expectations with the actual return profile of SIBs.

In the future, expanding the impact of SIBs on the non-profit sector is dependent on maintaining the vehicle's ability to satisfy investor goals. While some industry professionals have recommended developing a global market to trade standardized "impact securities," this approach would undermine the ability for SIBs to continue satisfying specific investor objectives. Instead, industry practitioners should maintain the structural elements that allow investors to remain intimately involved in the execution of SIB-funded interventions and emphasize outcome measurement. SIBs will only remain viable if investors are able to increase the probability of project success by staying involved in project management.

If more SIB-funded interventions are completed and more data becomes available regarding their outcomes, further research could be conducted to quantitatively demonstrate whether investor involvement in project management actually increases the probability of program success. The lack of existing quantitative data limits the scope of the conclusions of this thesis, and more data could provide measurable evidence for its claims. Research could also explore if investor involvement in these contracts leads to conflicts of interest between the various stakeholders of the contracts. Conflicts of interest could undermine the success of the non-profit interventions if the varying goals of stakeholders contradict one another. Finally, future research could explore how different tax regulations could grant tax benefits to SIB investors. Tax benefits could incentivize more investors to engage in SIB contracts, differentiating SIBs from other impact investments.

This thesis identifies investor goals and develops a more complete understanding of how SIBs satisfy these objectives. As more investors begin to seek altruistic impact in tandem with their financial goals, SIB practitioners must develop an awareness of why investors would commit capital to a SIB and how SIBs can better achieve those goals. While the long-term viability of SIBs is still unproven, considering SIBs from the perspective of the private investor will help industry professionals realize the contract’s potential, unlock access to more private capital, and deliver social impact.

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BIOGRAPHY

Chandler Groves was born in Arlington, Texas in 1997 and spent the first eighteen years of his life growing up in Southlake, Texas. After his graduation from Carroll Senior High School in 2015, Chandler moved to Austin, Texas to study at The University of Texas at Austin, joining his older sister and following in the footsteps of four generations of Longhorns in his family. Chandler pursued a Bachelor of Arts in Plan II Honors from the College of Liberal Arts and a Bachelor of Business Administration in Business Honors and Finance from the McCombs School of Business. As a UT Austin student, Chandler was involved in non-profits both on and off campus. He served on the board of directors for The Austin School for the Performing and Visual Arts, interned as a Summer VISTA for Feeding Texas, and joined the Texas 4000 for Cancer cycling team. After graduation, Chandler will begin his career as a Business Analyst at McKinsey & Company in Dallas.